

STIC Search Report Biotech-Chem Library

STIC Database Transking Indianalis

TO: Ruixiang Li

Location: rem/4D75/4C70

Art Unit: 1646

Friday, July 15, 2005

Case Serial Number: 10/019151

From: Edward Hart

Location: Biotech-Chem Library

REM-1A55

Phone: 571-272-2512

edward.hart@uspto.gov

Search Notes

Examiner Li,

Here are the results of the search you requested.

Please feel free to contact me if you have any questions.

Edward Hart





STIC-Biotech/ChemLib

From:

Li, Ruixiang

Sent:

Tuesday, July 12, 2005 7:09 PM STIC-Biotech/ChemLib

To: Subject:

Sequence search of Application No.10/019,151

Please do a standard search on:

SEQ ID NOS: 1-3 against commercial amino acid databases.

Thank you very much!

Ruixiang Li GAU 1646 **REM 4D75** Mail Box 4C70 (571) 272-0875

STAFF USE ONLY

Date Searcher Picked up

Date Completed:_

Searcher Prep/Rev. Time Online Time:_

******** Type of Search

NA#:_ SPĎI: Interference:

Oligomer: S/L:_ Encode/Transl:

Structure#:_ Inventor:____ Litigation:_

******** Vendors and cost where applicable

LEXIS/NEXIS:

SEQUENCE SYSTEM WWW/Internet:_ Other(Specify):_

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Maximum Match 100%
Listing first 45 summaries
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Claim 28; Page 91-92; 120pp; English. This is the amino acid sequence of novel human secreted protein fg949 3, as deduced from the open reading frame of an isolated human adult brain cDNA clone (see AAV62752). The sequence shows similarity to some database	New polynucleotide(s) encoding secreted human proteins - are derived from, e.g. human foetal brain or foetal kidney cDNA libraries, potentially useful as, e.g. vaccines or thrombolytic agents.	WPI; 1998-568731/48. N-PSDB; AAV62752.	Jacobs K, Mccoy JM, Lavallie ER, Racie LA, Merberg D, Treacy M; Spaulding V, Agostino MJ;	(GEMY) GENETICS INST INC.	15-APR-1997; 97US-00843374. 13-APR-1998; 98US-00059487.	14-APR-1998; 98WO-US007999.	22-OCT-1998.	WO9846757-A2.	/note= "predicted transmembrane domain is centered around amino acid 180"	transmembrane domain"	Key Location/Qualifiers Peptide 18. 30 /note= "predicted signal/leader sequence, or	o sapiens.	Secreted protein; human; fg949_3.	Human secreted protein fg949_3.	15-FEB-1999 (first entry)	AAW74726;	RESULT 1 AAW74726 D AAW74726 standard; protein; 339 AA.

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Mismatches 0;
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Homo sapiens

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Best Local Similarity 100.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Proteins, polynucleotides, vector diagnose, treat or prevent immu neurological, gastrointestinal,
                                      modulator; treat;
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                                                     heart disease; human; PGP980.1; cardiomyopathy; cardiant;
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02-OCT-1998;
24-NOV-1998;
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                                                                                                                                                                                                 Human; transmembrane protein; HTMPN; diagnosis; immunospecific; antiproliferative; neuroprotective; immune disorder; neuror reproductive disorder; mooth muscle disorder; neurological disorder; gastrointestinal disorder; developmental disorder;
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                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 339 AA;
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N-PSDB; AAZ56764.
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, Patterson
                                                                                                                                                                                                                                                                                                                                                       Conservative
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                                                                                                                                                                                                                                                                                                                                                                     100.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        229pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        JĽ,
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                                                                                                                                                                                                                                                                                                                                                      Score 1879; DB 3;
Pred. No. 8.6e-162;
); Mismatches 0;
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Kaser MR,
339
                             339
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RESULT 3
AAY70117
ID AAY7
XX
AC AAY7
XX
DT 06-J
DT 06-J
XX
Huma
XX
ISch
XW Isch
XW Isch
XX
OS Homc
XX
                                                                  Human ischaemic heart disease associated protein, PGP980.1.
                                                                                       06-JUN-2000
                                                                                                                                 AAY70117 standard;
           Homo sapiens
                                 modulator; treat;
                                           Ischaemia;
                                           heart disease; human;
                                                                                     (first
                                 prevention;
                                                                                                                                 protein;
                                                                                      entry)
                                  diagnosis
                                                                                                                                  ₹
                                          PGP980.1;
                                           cardiomyopathy;
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cardiant;

Key Peptide

Protein

WPI; 2000-237720/20. N-PSDB; AAZ51193.

01-SEP-1998; 01-SEP-1999;

(GENE-) GENE LOGIC INC.

WO200011942-A1

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The present amino acid sequence is the human protein designated as GGP980.1, that is differentially expressed in ischaemic heart disorders. PGP980.1 is isolated from human heart cDNA library and is expressed in heart, brain, placenta, lung, skeletal muscle, kidney and pancreas. This sequence is homologous to PGP980.2 protein, but differs at posttion 66, wherein PGP980.2 has arginine residue. PGP980.1 has cardiant activity. The DNA may be used as probes to detect and quantify homologous sequences in samples. PGP980.1 sequences can be used to identify modulators, that can be used for treatment, diagnosis and prevention of diseases can be used for treatment, diagnosis and prevention of diseases such as ischaemic heart disease and ischaemic cardiomyopathy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Isolated nucleic acids encoding a proteins that is differentially expressed during ischemic heart disease and ischemic cardiomyopathy, useful for preventing, diagnosing and treating cardiac disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 14; Page 50-51; 61pp; English.
                                                                                                                                                                                                                                                                                                                                                                              1 MAAACGPGAAGYCLLIGLHLFILTAGPALGWNDPDRMLLRDVKALTLHYDRYTTSRRLDP
                                                                                                                                  GATSGFGSAFTGQQGYENSGFGFWTGLGTGGILGYLFGSNRAATFFSDSWYYPSYPPSYP
                                                                                                                                                                                            VLLGIAFVVYKLFLSDGQYSPPPYSEYPPFSHRYQRFTNSAGPPPPGFKSEFTGPQNTGH
                                                                                                                                                                                                                                                                                                                    I PQLKCVGGTAGCDSYTPKVI QCQNKGWDGYDVQWECKTDLDIAYKPGKTVVSCEGYESS
                                                                                    GTWNRAYSPLHGGSGSYSVCSNSDTKTRTASGYGGTRRR 339
                                                                                                                    GATSGFGSAFTGQQGYENSGPGFWTGLGTGGTLGYLFGSNRAATPFSDSWYYPSYPPSYP
                                                                                                                                                                                                                                         EDQYVLRGSCGLEYNLDYTELGLQKLKESGKQHGFASFSDYYYKWSSADSCNMSGLITIV
                                                                                                                                                                                                                                                          EDQYVLRGSCGLEYNLDYTELGLQKLKESGKQHGFASFSDYYYKWSSADSCNMSGLITIV
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                                                                                                                                                                                                                                                                                                                                                               MAAACGPGAAGYCLLLGLHLFLLTAGPALGWNDPDRMLLRDVKALTLHYDRYTTSRRLDP
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illarity 100.0%;
Conservative 0
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                                                                                                                                                                                                                                                                                                                                                                                                                         0;
                                                                                                                                                                                                                                                                                                                                                                                                                       Score 1879; DB 3;
Pred. No. 8.6e-162;
; Mismatches 0;
                                                          339
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 339;
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04-MAY-1999;
04-MAY-1999;
04-MAY-1999;
04-MAY-1999;
25-MAY-1999;
                                                                                                                                                                         23 MAR-1999
23 MAR-1999
24 MAR-1999
31 MAR-1999
31 MAR-1999
25 APR-1999
27 APR-1999
27 APR-1999
27 APR-1999
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                                                                                                                                                                                                                                                                                                                               01-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                            28-SEP-2000
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                          (GETH )
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                          GENENTECH INC.
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                                                     99US-0131291P
99US-0132379P
99US-0132379P
99US-0132383P
99US-0135750P
99US-0138166P
99US-0146791P
99US-0146970P
99US-0170262P
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99US-0125778P.
99US-0125826P.
99US-0127035P.
99US-0127706P.
99US-0130359P.
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99US-0131272P.
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312. .318
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278. .284
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266. .272
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241. .247
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RESULT 4
AAB18931

Desnoyers

Eaton DL,

Goddard A,

Godowski PJ,

Gurney AL,

Pan

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301 301 241 241 181 181 121 121 61 13 -

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Best Local Sim: Matches 339; Query Match

Similarity

Sequence 339 AA;

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AAB19395
ID AAB1
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AC AAB1
XX AAB1
XX AB1
XX AB1
XX AB1
XX AB1
XX O6-M
XX Secz
KW Oste
KW nerv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local S
Matches 339
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                      Secreted protein; platelet disorder; stem cell disorder; osteoporosis; osteoarthritis; burn; incision; ulcer; periodontal disease; neuropathy
                                                                                                                                           06-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 12; Fig 46; 222pp; English.
                                                                                          Amino acid
                                                                                                                                                                                                                                      AAB19395 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      tissue typing
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                                                                                             sequence of a human
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                                                                                                                                         (first
                                                                                                                                                                                                                                      protein;
                                                                                                                                         entry)
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growth; cosmetic plastic
                                                                                          secreted protein.
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                        neuropathy;
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AAB19393-B19407 represent secreted human proteins. The secreted proteins care useful in assays to determine their biological activities. The proteins can also be used as biomarkers to identify tissues or cell types which express the proteins. The polynucleotide molecules can be used as biomarkers for tissues or chromosomes and to elicit immune responses. The proteins and antibodies are useful in diagnosis and treatment of diseases associated with altered expression of these proteins. The proteins are also useful for prevention or treatment of platelet disorders, stem cell disorders, osteoporosis or osteoarthritis, burns, inclsions, ulcers, periodontal diseases, central and peripheral nervous system diseases and neuropathies, for healing fractured bones and to induce cartilage and/or bone growth in cosmetic plastic surgery. The proteins are also useful for gut protection or regeneration, for the treatment of lung or liver fibrosis, for stimulating blood cell generation in patients receiving cancer chemotherapy and for treatment of bone marrow transplantation
                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Sin
Matches 339;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Novel secreted human proteins useful for stimulating blood cell generation in patients receiving cancer chemotherapy, treating marrow transplantation patients and for healing fractured bones
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N-PSDB; AAC61881.
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bone marrow transplantation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 339
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20-AUG-1999;
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                                                                                                                                            VLLGIAFVVYKLFLSDGQYSPPPYSEYPPFSHRYQRFTNSAGPPPPDGFKSEFTGPQNTGH
                                                                                                                                                                                                                                                                                                                                                                                 MAAACGPGAAGYCLLLGLHLFLLTAGPALGWNDPDRMLLRDVKALTLHYDRYTTSRRLDP
                                          GATSGFGSAFTGQQGYENSGPGFWTGLGTGGILGYLFGSNRAATPFSDSWYYPSYPPSYP
                                                                GATSGFGSAFTGQQGYENSGFGFWTGLGTGGILGYLFGSNRAATFFSDSWYYFSYFFSYF
    GTWNRAYSPLHGGSGSYSVCSNSDTKTRTASGYGGTRRR
                                                                                                                       VLLGIAFVVYKLFLSDGQYSPPPYSEYPPFSHRYQRFTNSAGPPPPGFKSEFTGPQNTGH
                                                                                                                                                                                                  EDQYVLRGSCGLEYNLDYTELGLQKLKESGKQHGFASFSDYYYKWSSADSCNMSGLITIV
                                                                                                                                                                                                                   EDQYVLRGSCGLEYNLDYTELGLQKLKESGKQHGFASFSDYYYKWSSADSCNMSGLITIV
                                                                                                                                                                                                                                                                              IPQLKCVGGTAGCDSYTPKVIQCQNKGWDGYDVQWECKTDLDIAYKFGKTVVSCEGYESS
                                                                                                                                                                                                                                                                                                    IPQLKCVGGTAGCDSYTPKVIQCQNKGWDGYDVQWECKTDLDIAYKFGKTVVSCEGYESS
                                                                                                                                                                                                                                                                                                                                                           MAAACGPGAAGYCLLLGLHLFLLTAGPALGWNDPDRMLLRDVKALTLHYDRYTTSRRLDP
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                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%;
ilarity 100.0%;
Conservative (
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99US-0150054P.
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Pred. No. 8.6e-162;
0; Mismatches 0;
      339
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Matches 339
                                                                                                                                                                                                                                                                                        secretory signals or membrane domains, and nucleic acids (see AAF30020-27) encoding them. These are expected to have cell proliferation, cell differentiation, immunostimulant or immunosuppressor, haematopoiesis regulating, tissue growth, activin, inhibin, chemotactic, chemokinetic, haemostatic, thrombolytic, receptor/ligand, antiinflammatory or antitumour activities (no evidence provided). Expression vectors, eukaryotic host cells and antibodies rare also provided. The secreted or membrane proteins of the invention can be used as pharmaceuticals or antigens for preparing antibodies. Cells expressing them are utilized for detection of corresponding receptors or ligands, and in candidate drug expressions.
                                                                                                                                                                                                                                                                                                                                                                                                                                                               The present sequence is that of a novel human protein having a putative Naternianal secretory and transmembrane domain. It is predicted from cDNA clone HP03342 (see AAF30021), isolated from a human umbilical cord blood cDNA library. The protein shows sequence similarity to Caenorhabditis elegans hypothetical protein CAA88972. The invention provides human proteins (see AAB20089-96) having hydrophobic domains indicative of secretory signals or manharana Armitia.
                                                                                                                                                                                                                                            Sequence 339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        immunostimulant; vulnerary; antiulcer; haemostatic; cytostatic; hepatotropic; thrombolytic; antitumour; antiviral; antibacterial; antifungal; gene therapy; diagnosis; membrane protein; protein se
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 1; Page 87-89; 126pp; English.
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(PROT-)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New proteins with hydrophobic domains, useful for treating autoimmune
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human; hydrophobic domain; antiinflammatory;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human
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                                                                                                                                                                            339;
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                                                                                                                         1 MAAACGPGAAGYCLLLGLHLFLLTAGPALGWNDPDRMLLRDVKALTLHYDRYTTSRRLDP
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                                                                                                                                                                                         Similarity
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 EDQYVLRGSCGLEYNLDYTELGLQKLKESGKQHGFASFSDYYYKWSSADSCNMSGLITIV
                                  IPQLKCVGGTAGCDSYTPKVIQCQNKGWDGYDVQWECKTDLDIAYKFGKTVVSCEGYESS
                                                        I PQLKCVGGTAGCDSYTPKVI QCQNKGWDGYDVQWECKTDLDIAYKFGKTVVSCEGYESS
                                                                                                       MAAACGPGAAGYCLLLGLHLFLLTAGPALGWNDPDRMLLRDVKALTLHYDRYTTSRRLDP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Kimura T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   inflammatory diseases, wounds,
                                                                                                                                                                           Conservative
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                                                                                                                                                                         100.0%; Score 1879; DB 4;
100.0%; Pred. No. 8.6e-162;
tive 0; Mismatches 0;
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Ma Y, Zhao QA, Y
Xue AJ, Yang Y,
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15-SEP-2000;
20-OCT-2000;
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20-JUN-2000;
19-JUL-2000;
The invention relates to polynucleotides (AAK51456-AAK53435) and the encoded polypeptides (AAM78323-AAM80302) that exhibit activity elating to cytokine, cell proliferation or which may induce production of other cytokines in other cell populations. The polynucleotides and polypeptides are useful in gene therapy, vaccines or peptide therapy. The polypeptides have various cytokine-like activities, e.g. stem cell growth factor activity, haematopolesis regulating activity, tissue growth factor activity, inaunomodulatory activity and activiny inhibin activity and may be useful in the diagnosis and/or treatment of cancer, leukaemia, nervous system disorders, arthritis and inflammation. Note: Records for SEQ ID NO 2110 (AAK52581), 2111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human; cytokine; cell proliferation; cell differentiation; gene therapy; vaccine; peptide therapy; stem cell growth factor; haematopoiesis; tissue growth factor; immunomodulatory; cancer; leukaemia;
                                                                                                                                                                                                                                                                                                                                             Claim
                                                                                                                                                                                                                                                                                                                                                                                                                            Nucleic acids encoding polypeptides with cytokine-like activities, useful
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Wejhrman
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Wang D, Wang J, Zhang J,
Wejhrman T, Goodrich R;
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Best Local Similarity 100.
Matches 339; Conservative
01-MAR-2000; 2000WO-US005601.
02-MAR-2000; 2000WO-US005841.
03-MAR-2000; 2000US-0186968P.
06-MAR-2000; 2000US-0189320P.
14-MAR-2000; 2000US-0189328P.
15-MAR-2000; 2000US-0199288P.
21-MAR-2000; 2000US-0199828P.
21-MAR-2000; 2000US-0190828P.
21-MAR-2000; 2000US-0191048P.
21-MAR-2000; 2000US-0191314P.
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28-MAR-2000; 2000US-0193053P.
29-MAR-2000; 2000US-0193053P.
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2000WO-US014941

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Baker 1 Pan J, KP, Smith Chen Juth V, Ĵ, , Desnoyers Watanabe CK, L, Goddard A, Gc, Wood WI, Zhang Godowski PJ, ng Z; Gurney AL;

N-PSDB; 2001-602746/68. DB; AAS46176.

Novel nucleic acids encoding PRO polypeptides, used to diagnose the presence of tumors, such as prostate and breast tumors, in mammals screen for modulators of the compounds. and ç

Claim 11; Fig 504; 774pp; English.

Sequences AAU29024-AAU29328 represent PRO polypeptides of the invention. CC The PRO polypeptides and their associated nucleic acids can be used to detect the presence of a tumour in a mammal by comparing the level of cc expression of a PRO polypeptide in a test sample of cells from the animal cc expression in the test sample indicates the presence of a tumour in the mammal sinclude dogs, cats, cattle, horses, sheep, pigs, goats and rabbits but are preferably human. The polypeptides can be used to stimulate tumour necrosis factor (TNP) alpha release from human blood, when contacted with it. A specific polypeptide can be used to stimulate tumour or differentiation of chondrocyte cells. The PRO cc proteins can be used to determine the presence of tumours and also susceptibility to tumour development, particularly adrenal, lung, colon, cc breast, prostate, rectal, cervical, or liver tumours, in mammalian cc subjects. The oligonucleotide probes specific for the PRO nucleic acids can be used for genetic analysis of individuals with genetic disorders

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                 EDQYVLRGSCGLEYNLDYTELGLQKLKESGKQHGFASFSDYYYKWSSADSCNMSGLITIV
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RESULT 10
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activating protein SEQ ID

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Godowski P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   One hundred and eighty seven nucleic acids encoding PRO poly useful in diagnosis and treatment of cardiovascular (e.g. my infarction), endothelial or angiogenic disorders in a mammal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   mapping. ABL88259 to ABL88267 represent peremplification of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 11; Fig 326; 565pp; English.
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N-PSDB; ABL88234.
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Stephan JF, Watanabe
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01-JUN-2001; 2001WO-US017800
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                                                                                     GATSGFGSAFTGQQGYENSGPGFWTGLGTGGILGYLFGSNRAATPFSDSWYYPSYPPSYP
                      GTWNRAYSPLHGGSGSYSVCSNSDTKTRTASGYGGTRRR 339
GTWNRAYSPLHGGSGSYSVCSNSDTKTRTASGYGGTRRR
                                                                      GATSGFGSAFTGQQGYENSGPGFWTGLGTGGILGYLFGSNRAATPFSDSWYYPSYPPSYP
                                                                                                                                 VLLGIAFVVYKLFLSDGOYSPPPYSEYPPPSHRYQRFTNSAGPPPPGFKSEFTGPQNTGH
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L, Hillan KJ, Marsters SA, Pan o
CK, Williams PM, Wood WI, Ye W;
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KJ, Marsters SA,
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a.6e-162;
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Matches: 339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The invention relates to a purified protein (I), comprising one of 90 fully defined sequences (ABP61842-ABR61813) or a protein based on any of the sequences but with some amino acids deleted, substituted or added and with a NP-kB (nuclear factor kappa B) activating effect. The protein and encoding gene (ABQ91912-ABQ92001) are useful in diagnosis and screening inhibitors or promoters to control excessive activation or inhibition and for treating e.g. inflammations, autoimmune diseases, cancers, infections, bone diseases, AIDS, neurodegenerative diseases or ischaemic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human; NF-KB; nuclear factor kappa B; mouse; antiinflammatory; immunomodulator; cytostatic; antiinfective; osteopathic; nootropic; neuroprotective; anti-HIV; autoimmune disease; cancer; infection; bone disease; hIDS; neurodegenerative disease; ischaemic disorder.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NP-approximatelykB activating gene and expressed protein, applicable diagnosis and screening inhibitors or promoters to control excessive activation or inhibition for treating e.g. inflammations, autoimmune diseases and cancer.
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26-MAR-2001; 2001JP-00088912.
24-AUG-2001; 2001JP-00254018.
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DB; ABQ91913.
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GTWNRAYSPLHGGSGSYSVCSNSDTKTRTASGYGGTRRR 339
                                                                                                                                                                                            VLLGIAFVVYKLFLSDGQYSPPPYSEYPPFSHRYQRFTNSAGPPPPDGFKSEFTGPQNTGH
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                        GTWNRAYSPLHGGSGSYSVCSNSDTKTRTASGYGGTRRR 339
                                                                                   GATSGFGSAFTGQQGYENSGPGFWTGLGTGGILGYLFGSNRAATPFSDSWYYPSYPPSYP
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Pred. No. 8.6e-162;
; Mismatches 0;
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RESULT 11
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112-JAN-2001;
16-JAN-2001;
16-JAN-2001;
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25-JAN-2001;
25-JAN-2001;
26-FEB-2001;
28-FEB-2001;
29-MAR-2001;
09-MAR-2001;
09-MAR-2001;
09-MAY-2001;
09-MAY-2001;
01-JUN-2001;
25-MAY-2001;
25-MAY-2001;
20-JUN-2001;
20-JUN-2001;
29-JUN-2001;
29-JUN-2001;
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05-SEP-2000;
22-SEP-2000;
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N-PSDB; ABK69983.
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Fong S;
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2000US-0235147P
2000US-0261878P
2001US-0261939P
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2001US-02621539P
2001US-0264235P
2001US-0266423P
2001US-0267623P
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2001US-02774399P
2001US-02780982P
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Wood WI,
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, Zhang
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New PRO polypeptides and polynucleotides encoding the polypeptides, useful in gene therapy, chromosome identification, tissue typing, c genetic analysis of individuals with genetic disorders. typing, or for

Claim 11; Fig 46; 218pp; English.

This invention relates to the cDNA and protein sequences of novel secreted and transmembrane polypeptides PRO polypeptides. The invention also comprises a method for producing the proteins of the invention by recombinant means and antibodies specific for the protein of the invention. The antibody may be used for detecting the PRO proteins of the invention and may be used to modify their activity. polymucleotides may be used as hybridisation probes for a cDNA library to isolate the full-length PRO cDNA or to isolate other cDNAs, to construct hybridisation probes for mapping the gene which encodes that PRO and for genetic analysis of individuals with genetic disorders, in assays to identify other proteins or molecules involved in binding reaction, to generate transgenic animals or knock-out animals which in turn are useful in the development and screening of therapeutically useful reagents, for development and screening of these proteins.

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RESULT 12
ABB95585
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02-AUG-2000;
17-AUG-2000;
23-AUG-2000;
24-AUG-2000;
18-SEP-2000;
18-SEP-2000;
18-SEP-2000;
24-OCT-2000;
                                                                                                                                                                                                                                                                                                                     numan; angiogenesis; PRO protein; cardiovascularisation; wound;
atherosclerosis; cardiac hypertrophy; gene therapy; endothelial
cardiant; cytostatic; antiangiogenic; hypotensive; vulnerary;
antiarteriosclerotic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            useful in gene therapy, and as molecular weight markers for prote electrophoresis purposes. The sequences may also be used to detect overexpression on PRO polypeptides in cancerous tumours and for for differentially expressed genes using microarray technology. The present sequence represents a human PRO protein of the invention
                                                                                                                                                                                                          09-JUL-2001; 2001WO-US021735
                                                                                                                                                                                                                                       31-JAN-2002.
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7 2000US-0219556P.
7 2000US-020664P.
7 2000US-0220664P.
7 2000US-022069710.
7 2000US-0226959.
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7 2000US-02664610.
7 2000US-0266350.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         protein;
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Pred. No. 8.6e-162;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ₿
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                                                                                                                                                                                                                                                                                                                                                                                                    ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 339
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      339;
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o detect
d for screening
logy. The
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                                                                                                                                                                                                                                                                                                                                                       cancer;
disorder;
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IPQLKCVGGTAGCDSYTPKVIQCQNKGWDGYDVQWECKTDLDIAYKFGKTVVSCEGYESS MAAACGPGAAGYCLLLGLHLFLLTAGPALGWNDPDRMLLRDVKALTLHYDRYTTSRRLDP MAAACGPGAAGYCLLLGLHLFLLTAGPALGWNDPDRMLLRDVKALTLHYDRYTTSRRLDP

120 60 Query Match Best Local S Matches 339

Similarity

100. ilarity 100. Conservative

0,0 0

Score 1879; Pred. No. 8.6 0; Mismatches

DB 5; 8.6e-162; 0;

339; 0;

Indels Length

Gaps

0

Sequence

339

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SECOCOCOCOCOX SECULO DE LA COLO DEL COLO DE LA COLO DEL LA COLO DELA COLO DEL LA COLO DEL LA
                                 The present invention provides the protein and coding sequences of human PRO proteins. These are useful for treating or diagnosing a cardiovascular, endothelial or angiogenic disorder, including cardiac hypertrophy, trauma, cancer, age-related macular degeneration, atherosclerosis, hypertension, arterial restences, theumacoid arthritis, angina, myocardial infarctions, thrombophiebitis, lymphangitis, tumour angiogenesis (such as breast carcinoma and liver carcinoma) and wound healing. The present sequence is a PRO protein of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               08-NOV-2000
110-NOV-2000
110-NOV-2000
01-DEC-2000
20-DEC-2000
22-DAN-2001
28-FEB-2001
28-FEB-2001
01-MAR-2001
11-MAR-2001
12-MAR-2001
11-MAR-2001
11-MAY-2001
11-MAY-2001
11-MAY-2001
11-MAY-2001
12-MAY-2001
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11-MAY-2001
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Godowski
                                                                                                                                                                                                                                                                                     One hundred and eighty seven nucleic acids encoding useful in diagnosis and treatment of cardiovascular infarction), endothelial or angiogenic disorders in
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Godowski PJ, Gurney A
Stephan JF, Watanabe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            30-MAY-2001;
01-JUN-2001;
20-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                         N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (GERR/)
(GODD/)
(GODO/)
(GURN/)
(HILL/)
                                                                                                                                                                                                                                                    Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (PAON/)
(STEP/)
(WATA/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (MARS/)
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DB; ABL95723.
                                                                                                                                                                                                                                               11; Fig 326; 567pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PAN J.
PAONI N F.
STEPHAN J F.
WATTANABE C K.
WILLIAMS P M.
WOOD W I.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GODOWSKI P J.
GURNEY A L.
HILLAN K J.
MARSTERS S A.
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GERRITSEN M E.
GODDARD A.
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PAN J.
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BAKER K P.
FERRARA N.
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Gurney
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2001US-00767609.
2001US-00796498.
2001US-00802706.
2001US-00802706.
2001US-00808689.
2001US-00854286.
2001US-00854280.
2001US-00866028.
2001US-00866028.
2001US-00866034.
2001US-0086034.
2001US-0086034.
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2001US-0086034.
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2000WO-US030873.
2000WO-US032678.
2000US-00747259.
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ΩĽ,
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L, Hillan KJ, Marsters SA, Pan
CK, Williams PM, Wood WI, Ye W;
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                                                                                                                                                                                                                                                                                          PRO polypeptides, (e.g. myocardial a mammal.
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RESULT 13
ABP61841
ID ABP61
XX ABP61841
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                                                                                                                                                                                                                                                                                                        Jacobs K, r
                                                                                                      Novel secreted or transmembrane protein and polynucleotide encoding the protein, useful for diagnosis and treatment of neurological disorders, cancer, autoimmune diseases, bone disorders and lung or liver fibrosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human; cytostatic; antirheumatic; antiarthritic; vulnerary; analgesic; antiinflammatory; antibacterial; immunosuppressive; antiparkinsonian; neuroprotective; nootropic; osteopathic; haemostatic; vasotropic; antiulcer; fungicide; antidiabetic; antiasthmatic; antiallergic; immunostimulant; antiparasitic; secreted protein; transmembrane protein; cytokine; cell proliferation; cell differentiation; autoimmune disease; stem cell; growth factor; nervous system disease; neuropathy; hlzheimer's disease; Parkinson's disease; Huntington's disease; osteoporosis; severe combined immunodeficiency; SCID; infection; osteoporosis; severe combined immunodeficiency; SCID; infection;
                                                                                                                                                                                                                                 N-PSDB; ABQ92055.
                                                    Claim 184; Page 193; 284pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               04-OCT-2002 (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         multiple sclerosis; rheumatoid arthritis; gene therapy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human polypeptide SEQ ID NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COLT/)
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                                                                                                                                                                                                                                                         2002-582343/62.
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                                                                                                                                                                                                                                                                                                                                                                                               EVANS C.
MERBERG D.
TREACY M.
SPAULDING V.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ) JACOBS K.
) MCCOY J M.
) LAVALLIE E R.
) COLLINS-RACIE L !
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                                                                                                                                                                                                                                                                                                             Mccoy JM,
Treacy M,
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Spaulding V;
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Best Local S
Matches 339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 339 AA;
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GTWNRAYSPLHGGSGSYSVCSNSDTKTRTASGYGGTRRR 339
                                                                                          GATSGFGSAFTGQQGYENSGFGFWTGLGTGGILGYLFGSNRAATPFSDSWYYPSYPPSYP
                                                                                                                                                                                         VLLGIAFVVYKLFLSDGQYSPPPYSEYPPFSHRYQRFTNSAGPPPPGFKSEFTGPQNTGH
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                                                                 GATSGFGSAFTGQQGYENSGPGFWTGLGTGGILGYLFGSNRAATPFSDSWYYPSYPPSYP
                                                                                                                                                              VILIGIAFVVYKLFLSDGQYSPPPYSEYPPFSHRYQRFTNSAGPPPPGFKSEFTGPQNTGH
                                                                                                                                                                                                                                                          EDOYVLRGSCGLEYNLDYTELGLQKLKESGKQHGFASFSDYYYKWSSADSCNMSGLITIV
                                                                                                                                                                                                                                                                                      EDQYVLRGSCGLEYNLDYTELGLQKLKESGKQHGFASFSDYYYKWSSADSCNMSGLITIV
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ilarity 100.0%;
Conservative (
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Pred. No. 8.6e-162;
); Mismatches 0;
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RESULT 14
ABU58651
ID ABU58
XX
AC ABU58
AC ABU51
XX
AC Humar
XX
DE Humar
XX
Humar
                Human PRO polypeptide #252
                                     15-APR-2003
                                                                           ABU58651
                                                                          standard;
                                    (first entry)
                                                                          protein;
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Human; PRO; cytostatic; tumour; cancer; breast; lung; stomach; liver;

The invention relates to human secreted

or transmembrane protein (I),

	antibody-dependent enzyme mediated prod Homo sapiens. US2003027272-A1. 06-PEB-2003. 21-JUN-2002; 2002US-00176492. 18-SEP-1997; 97US-0059266P. 17-OCT-1997; 97US-0063486P. 24-OCT-1997; 97US-0063120P. 24-OCT-1997; 97US-0063121P. 28-OCT-1997; 97US-0063544P. 28-OCT-1997; 97US-0063544P. 28-OCT-1997; 97US-0063544P. 28-OCT-1997; 97US-0063544P. 29-OCT-1997; 97US-0063544P. 29-OCT-1997; 97US-006354P. 24-NOV-1997; 97US-006311P. 21-NOV-1997; 97US-0066103P. 24-NOV-1997; 97US-006610P. 24-NOV-1997; 97US-006612P. 25-OCT-1997; 97US-006612P. 26-NAR-1998; 98US-008937P. 11-DEC-1997; 97US-006646P. 27-MAR-1998; 98US-0077649P. 11-MAR-1998; 98US-0077632P. 11-MAR-1998; 98US-0079766P. 27-MAR-1998; 98US-0079766P. 27-MAR-1998; 98US-0080137P. 11-APR-1998; 98US-0080339P. 11-APR-1998; 98US-008359P. 11-APR-1998; 9
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                                                                                                                                                                                                        VILGIAFVVYKLFLSDGQYSPPPYSEYPPFSHRYQRFTNSAGPPPPGFKSEFTGPQNTGH
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Pred. No. 8.6e-162;
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	• Search completed: July 14, 2005, 20:27:21 Job time : 120.621 secs	omplet ; ; 120	Search c Job time
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RRR 339	301 GTWNRAYSPLHGGSGSYSVCSNSDTKTRTASGYGGTRRR 339	301	Ş
FGSNRAATPFSDSWYYPSYPPSYP 3	241 GATSGFGSAFTGQQGYENSGPGFWTGLGTGGILGYLFGSNRAATPFSDSWYYPSYPPSYP 300	241	90
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Result
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Listing first 45 summaries
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Maximum DB seq length: 200000000
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Perfect score:
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                            protein search, using sw model
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Gapop 10.0 , Gapext 0.
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Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                              Length
                                                                                                                                                                                                                                              DB
  9 US-09-745-763-146

10 US-09-931-836-80

US-10-036-342-80

US-10-036-041-80

US-10-036-041-80

4 US-10-035-855-80

4 US-10-174-590-504

US-10-176-758-504

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US-10-176-483-504
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                                                                                                                                                                                                                                                                                                      SUMMARIES
Sequence 146, App
Sequence 80, Appl
Sequence 80, Appl
Sequence 504, App
Sequence 80, Appl
Sequence 80, Appl
Sequence 504, App
                                                                                                                                                                                                                                          Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 1
US-09-745-763-146
US-09-745-763-146; Sequence 146, Application US/09745763; Patent No. US20020065394A1
; Patent No. US20020065394A1
; GENERAL INFORMATION:
                NUMBER OF SEQUENCES: 219

CORRESPONDENCE ADDRESS:
ADDRESSE: Genetics Institute, Inc.
STREET: 87 CambridgePark Drive
CITY: Cambridge
STATE: NA
COUNTRY: U.S.A.
ZIP: 02140
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOPTWARE: Batentin Release #1.0, Version #1.
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/745,763
FILING DATE: 18-Jun-2000
CLASSIFICATION: <Unknown
ATTORNEY/AGENT INFORMATION:
NUMBE: SCRITTERS
                                                                                                                                                                                                                                                                                                                                                                              Merberg, David
Treacy, Maurice
Spaulding, Vikki
TITLE OF INVENTION: SECRETED
ENCODING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Jacobs, Kenneth
McCoy, John M.
LaVallie, Edward
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Evans, Cheryl
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US-10-176-915-504
US-10-175-915-504
US-10-175-738-504
US-10-175-738-504
US-10-176-482-504
US-10-176-913-504
US-10-180-552-504
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US-10-180-552-504
US-10-174-572-504
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US-10-174-588-504
US-10-175-739-504
US-10-176-98-504
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US-10-176-98-504
US-10-176-99-504
US-10-184-658-504
US-10-184-658-504
US-10-176-993-504
US-10-173-695-504
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; SEQUENCE
US-09-745-763-146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-931-836-80
PRIOR APPLICATION NUMBER: 60/085579
PRIOR FILING DATE: 1998-05-15
PRIOR APPLICATION NUMBER: 60/112514
PRIOR PILING DATE: 1998-12-15
PRIOR APPLICATION NUMBER: 60/113300
PRIOR PILING DATE: 1998-12-23
PRIOR APPLICATION NUMBER: 60/113430
PRIOR APPLICATION NUMBER: 60/113605
PRIOR PILING DATE: 1998-12-23
PRIOR APPLICATION NUMBER: 60/113605
PRIOR PILING DATE: 1998-12-23
                                                                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
APPLICANT: Desnoyers, Luc
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Best Local Similarity
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                                                                                                                                                                 APPLICANT: Zhang, Zemin
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P3030R1C1
CURRENT APPLICATION NUMBER: US/09/931,836
CURRENT FILING DATE: 2001-08-16
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TELECOMMUNICATION INFORMATION:
TELEPAN: (617) 498-8284
TELEPAX: (617) 876-5851
INFORMATION FOR SEQ ID NO: 146:
SEQUENCE CHARACTERISTICS:
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STRANDEDNESS: <Unknown>
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Stewart, Timothy A.
Watanabe, Colin K.
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Godowski, Paul J.
Gurney, Austin L.
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No. US20030027249A1
                                                                                                                                                                                                                                                                            Wood, William I.
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Pred. No. 4e-165;
Mismatches 0
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DR FILLING DATE: 2001-03-22
DR APPLICATION NUMBER: 09/854208
DR FILLING DATE: 2001-05-10
DR APPLICATION NUMBER: 09/854280
DR FILING DATE: 2001-05-10
   FILING DATE: 1999-12-22
APPLICATION NUMBER: PCT/US00/05601
FILING DATE: 2000-03-01
APPLICATION NUMBER: PCT/US00/05841
                                                               FILING DATE: 2001-07-18
APPLICATION NUMBER: PCT/US99/10733
FILING DATE: 1999-05-14
APPLICATION NUMBER: PCT/US99/28551
FILING DATE: 1999-12-02
APPLICATION NUMBER: PCT/US99/30720
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APPLICATION WIMBER: 09/880142
FILING DATE: 1999-08-25
APPLICATION NUMBER: 09/644848
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APPLICATION NUMBER: 60/144791
FILING DATE: 1999-07-20
APPLICATION NUMBER: 60/146970
APPLICATION NUMBER: 60/146970
FILING DATE: 1999-08-03
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FILING DATE: 1999-04-27
APPLICATION NUMBER: 60/131291
FILING DATE: 1999-04-27
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FILING DATE: 1998-12-23
APPLICATION NUMBER: 60/114140
FILING DATE: 1998-12-23
APPLICATION NUMBER: 60/115552
                                                                                                                                                                       FILING DATE: 2001-06-29
APPLICATION NUMBER: 09/908,827
                                                                                                                                                                                                                        APPLICATION NUMBER: 09/874503
FILING DATE: 2001-06-05
                                                                                                                                                                                                                                                                                                                                                                              FILING DATE: 2000-08-22
APPLICATION NUMBER: 09/747259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: 60/162506 FILING DATE: 1999-10-29
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APPLICATION NUMBER: 60/138166
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APPLICATION NUMBER: 60/132383
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APPLICATION NUMBER: 60/131270
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APPLICATION NUMBER: 60/130359
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APPLICATION NUMBER: 60/129122
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FILING DATE: 1999-03-31
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APPLICATION NUMBER: 60/135750
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   APPLICANT: Desnoyers, Luc APPLICANT: Eaton, Dan L. APPLICANT: Goddard, Audrey APPLICANT: Goddwski, Paul APPLICANT: Goddwski, Paul APPLICANT: Gurney, Austin APPLICANT: Stewart, Timoth APPLICANT: Stewart, Timoth APPLICANT: Wood, William I
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Best Local S
Matches 339
                                                                                                                                                                     Sequence 80, App
Publication No.
                                                                                                                                                       GENERAL INFORMATION:
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OR APPLICATION NUMBER: PCT/US00/32678
OR FILING DATE: 2000-12-01
IOR APPLICATION NUMBER: PCT/US00/34956
IOR FILING DATE: 2000-12-20
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OR APPLICATION NUMBER: PCT/US00/14042
OR FILING DATE: 2000-05-22
OR APPLICATION NUMBER: PCT/US00/15264
OR FILING DATE: 2000-06-02
OR APPLICATION NUMBER: PCT/US00/23522
OR APPLICATION NUMBER: PCT/US00/23528
OR APPLICATION NUMBER: PCT/US00/23328
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DR FILING DATE: 2001-08-28
DR APPLICATION NUMBER: PCT/US01/17800
DR FILING DATE: 2001-06-01
DR APPLICATION NUMBER: PCT/US01/19692
DR APPLICATION NUMBER: PCT/US01/21066
DR APPLICATION NUMBER: PCT/US01/21066
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APPLICATION NUMBER: PCT/US01/21735
FILING DATE: 2001-07-09
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Goddard, Audrey
Godowski, Paul J.
Gurney, Austin L.
Pan, James
Stewart Timothy A.
Watanabe, Colin K.
Wood, William I.
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### APPLICANY: ACHANG, Zemin TTILES OF INVESTION: ACIDS ENCOUND THE SAME
FILL REFERENCE: 1907/01/56,342

CURRENT PELICATION WARRER: 40/045/79

FRICE PILLY DATE: 1901-12-26

FRICE PELICATION WARRER: 40/045/79

FRICE PILLY DATE: 1991-12-21

FRICE PELICATION WARRER: 40/11/300

FRICE PILLY DATE: 1991-12-21

FRICE PELICATION WARRER: 40/11/300

FRICE PILLY DATE: 1991-12-21

FRICE PILLY DATE: 1991-12-22

FRICE PILLY DATE: 1991-12-22

FRICE PILLY DATE: 1991-12-23

FRICE PILLY DATE: 1991-12
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FILING DATE APPLICATION APPLICATI

NUMBER: 09/874503 NUMBER: 09/869599

APPLICATION NUMBER: 09/908,827

2001-06-29 2001-06-05 2001-05-10

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NUMBER OF SEQ ID
SEQ ID NO 80
LENGTH: 339
TYPE: PRT
ORGANISM: Homo S
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Best Local (
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FILING DATE: 2001-07-00
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FILING DATE: 2000-12-01
APPLICATION NUMBER: PCT/US00/34956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE: 2000-03-02
APPLICATION NUMBER: PCT/US00/14042
FILING DATE: 2000-05-22
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APPLICATION NUMBER: PCT/US00/15264
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APPLICATION NUMBER: PCT/US00/05841
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APPLICATION NUMBER: PCT/US00/05601
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APPLICATION NUMBER: PCT/US99/30720
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APPLICATION NUMBER: PCT/US99/28551
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                GTWNRAYSPLHGGSGSYSVCSNSDTKTRTASGYGGTRRR 339
                                                           GATSGFGSAFTGQQGYENSGPGFWTGLGTGGILGYLFGSNRAATPFSDSWYYPSYPPSYP
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GTWNRAYSPLHGGSGSYSVCSNSDTKTRTASGYGGTRRR
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APPLICANT: Zhang, Zemin
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND
TITLE OF INVENTION: SECRETED AND THE SAME
FILE REPERENCE: 2943071C1
CURRENT FILING DATE: 2002-01-15
PRIOR APPLICATION NUMBER: 60/059263
PRIOR FILING DATE: 1997-09-18
PRIOR PELICATION NUMBER: 60/062250
PRIOR PELICATION NUMBER: 60/063120
PRIOR PELICATION NUMBER: 60/063120
PRIOR PELICATION NUMBER: 60/063120
PRIOR PELICATION NUMBER: 60/063121
PRIOR APPLICATION NUMBER: 60/063121
PRIOR PELICATION NUMBER: 60/063121
PRIOR APPLICATION NUMBER: 60/063121
PRIOR PILING DATE: 1997-10-24
PRIOR PILING DATE: 1997-10-28
PRIOR APPLICATION NUMBER: 60/063541
PRIOR PILING DATE: 1997-10-28
PRIOR APPLICATION NUMBER: 60/063544
PRIOR PILING DATE: 1997-10-28
PRIOR APPLICATION NUMBER: 60/063544
PRIOR PILING DATE: 1997-10-28
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US-10-052-586-504
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APPLICANT: Chen, Jian
APPLICANT: Desnoyers, Luc
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OR APPLICATION NUMBER: 60/063544
OR APPLICATION NUMBER: 60/063564
OR FILING DATE: 1997-10-28
OR APPLICATION NUMBER: 60/063734
OR FILING DATE: 1997-10-29
OR APPLICATION NUMBER: 60/063734
OR FILING DATE: 1997-10-31
OR APPLICATION NUMBER: 60/064103
OR FILING DATE: 1997-10-31
OR APPLICATION NUMBER: 60/065311
OR APPLICATION NUMBER: 60/065311
OR APPLICATION NUMBER: 60/066120
OR FILING DATE: 1997-11-21
OR APPLICATION NUMBER: 60/066120
OR FILING DATE: 1997-11-21
OR APPLICATION NUMBER: 60/066120
OR FILING DATE: 1997-11-24
OR APPLICATION NUMBER: 60/066466
OR FILING DATE: 1997-11-24
OR APPLICATION NUMBER: 60/066772
OR APPLICATION NUMBER: 60/066773
                                                                                     OR FILING DATE: 1997-12-17
OR APPLICATION NUMBER: 60/068017
OR APPLICATION NUMBER: 60/077450
OR APPLICATION NUMBER: 60/077450
OR FILING DATE: 1998-03-10
OR PPLICATION NUMBER: 60/077632
OR FILING DATE: 1998-03-11
OR APPLICATION NUMBER: 60/077649
R FILING DATE:
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R FILING DATE:
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APPLICATION NUMBER: 60/069425
FILING DATE: 1997-12-12
APPLICATION NUMBER: 60/069870
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Smith, Victoria
Watanabe, Colin K
Wood, William I.
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Godowski, Paul
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NUMBER: 60/078886
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APPLICATION NUMBER: 60/080107 FILING DATE: 1998-03-31 APPLICATION NUMBER: 60/080194 FILING DATE: 1998-03-31 APPLICATION NUMBER: 60/080327

1998-04-0

APPLICATION NUMBER: FILING DATE: 1998-0 FILING DATE: 1998-03-: APPLICATION NUMBER: 61 FILING DATE: 1998-03-

1998-03-27

60/079786 /079664

APPLICATION NUMBER: 60/078939 FILING DATE: 1998-03-20

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PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR

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FILING DATE: 1998-04-08 APPLICATION NUMBER: 60/081070 FILING DATE: 1998-04-08

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FILING DATE: APPLICATION NUMBER:

1998-04-0

60/080333

APPLICATION NUMBER:

60/081049

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OR APPLICATION NUMBER: 60/088738
OR PILING DATE: 1998-06-10
OR APPLICATION NUMBER: 60/088740
OR PILING DATE: 1998-06-10
OR PILING DATE: 1998-06-10
OR APPLICATION NUMBER: 60/088811
OR PILING DATE: 1998-06-10
OR APPLICATION NUMBER: 60/088825
OR PILING DATE: 1998-06-10
OR APPLICATION NUMBER: 60/088826
OR PILING DATE: 1998-06-10
OR APPLICATION NUMBER: 60/088861
OR APPLICATION NUMBER: 60/088863
OR PILING DATE: 1998-06-11
OR APPLICATION NUMBER: 60/088863
OR PILING DATE: 1998-06-11
OR APPLICATION NUMBER: 60/089863
OR APPLICATION NUMBER: 60/089090
OR APPLICATION NUMBER: 60/089105
OR APPLICATION NUMBER: 60/089105
OR APPLICATION NUMBER: 60/089512
OR APPLICATION NUMBER: 60/089514
OR APPLICATION NUMBER: 60/089514
OR APPLICATION NUMBER: 60/089514
OR APPLICATION NUMBER: 60/089518
OR APPLICATION NUMBER: 60/089519
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DR APPLICATION NUMBER: 60/088326

DR FILING DATE: 1998-06-04

DR APPLICATION NUMBER: 60/088655

DR FILING DATE: 1998-06-09

DR APPLICATION NUMBER: 60/088722
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R APPLICATION NUMBER: 6
R FILING DATE: 1998-06-
R APPLICATION NUMBER: 6
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FILING DATE: 1998-06-17
APPLICATION NUMBER: 60/089908
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FILING DATE: 1998-06-05
APPLICATION NUMBER: 60/088217
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APPLICATION NUMBER: 60/088033
FILING DATE: 1998-06-04
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FILING DATE: 1998-06-05
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APPLICATION NUMBER: 60/088029
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APPLICATION NUMBER: 60/088028
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                                                                                                                                                                                           100.0%; Score 1879; DB 13; llarity 100.0%; Pred. No. 4e-165; Conservative 0; Mismatches 0;
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WIMBER: 60/087827
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APPLICATION NUMBER: 60/083495 FILING DATE: 1998-04-29 APPLICATION NUMBER: 60/083496 FILING DATE: 1998-04-29

APPLICATION

NUMBER: 60/082797

LING DATE:

FILING DATE:

APPLICATION NUMBER: 60/083322

1998-04-28 1998-04-22 1998-04-22

APPLICATION NUMBER: FILING DATE: 1998-04

60/082704

APPLICATION NUMBER: 60/082569 FILING DATE: 1998-04-21 APPLICATION NUMBER: 60/082568 FILING DATE: 1998-04-21 APPLICATION NUMBER: 60/081838 FILING DATE: 1998-04-15 APPLICATION NUMBER: 60/081195 FILING DATE: 1998-04-09

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121 BDQYYLRGSCGLEYNLDYTELGLQKLKESGKQHGFASFSDYYYKWSSADSCNWSGLITIV
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                                                           Gaps
                          120
      180
                 120
                                     60
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339;

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A APPLICATION W

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A APPLICATION W

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A APPLICATION W

NUMBER: 60/087098

1998-05-28 1998-05-22 1998-05-22 1998-05-18

NUMBER:

60/087208

1998-05-28

NUMBER: 60/087609 : 1998-06-02

60/087759

NUMBER: NUMBER:

60/086486 60/086392 DR FILING DATE: 1998-05-07

DR APPLICATION NUMBER: 60/085573

DR FILING DATE: 1998-05-15

DR APPLICATION NUMBER: 60/085579

DR FILING DATE: 1998-05-15

DR APPLICATION NUMBER: 60/085580

DR FILING DATE: 1998-05-15

DR APPLICATION NUMBER: 60/085582

DR APPLICATION NUMBER: 60/085582

PILING DATE: 1998-05
APPLICATION NUMBER:

FILING DATE: APPLICATION N

NUMBER: 60/084640

1998-05-07

60/084643

1998-05-07 1998-05-06

APPLICATION NUMBER: 60/084639

FILING DATE:

APPLICATION NUMBER: 60/084366 FILING DATE: 1998-05-05 APPLICATION NUMBER: 60/084414

FILING DATE: APPLICATION N

NUMBER: 60/083559

1998-04-29

1998-04-29

APPLICATION NUMBER: 60/083499

FILING DATE:

APPLICATION N FILING DATE: APPLICATION N

NUMBER: 60/085700

NUMBER: 60/086023

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PRIOR
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APPLICANT: Wood, William I.
APPLICANT: Zhang, Zemin
APPLICANT: Zhang, Zemin
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
TITLE OF INVENTION: ACIDS ENCODING THE SAME
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
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CURRENT FILING DATE: 2001-12-26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Desnoyers, Luc
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      OR FILING DATE: 1999-04-13
OR APPLICATION NUMBER: 60/130359
OR PILING DATE: 1999-04-21
OR APPLICATION NUMBER: 60/131270
OR FILING DATE: 1999-04-27
OR APPLICATION NUMBER: 60/131272
OR APPLICATION NUMBER: 60/131272
OR APPLICATION NUMBER: 60/131272
OR APPLICATION NUMBER: 60/131291
OR FILING DATE: 1999-04-27
OR FILING DATE: 1999-04-27
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FILING DATE: 1998-05-15
APPLICATION
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                                                                                                                                                                                                                                                                                                                             FILING DATE: 1999-03-31
APPLICATION NUMBER: 60/127706
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APPLICATION NUMBER: 60/115552
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APPLICATION NUMBER: 60/129122
                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: 1999-0: APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: 60/125778
FILING DATE: 1999-03-23
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APPLICATION NUMBER: 60/116843
FILING DATE: 1999-01-22
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                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: 60/125826
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FILING DATE: 1999-03-23
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Godowski, Paul J.
Gurney, Austin L.
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NUMBER OF SEQ ID NOS: 80; SEQ ID NO 80; LENGTH: 339; TYPE: PRT; ORGANISM: Homo Sapien
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                                                                                                                                                    PRIOR APPLICATION NUMBER: PRIOR FILING DATE: 2001-07
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APPLICATION NUMBER: PCT
FILING DATE: 2001-06-29
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FILING DATE: 1999-05-04
APPLICATION NUMBER: 60/132379
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DR FILING DATE: 1999-05-25

DR APPLICATION NUMBER: 60/138166

DR FILING DATE: 1999-06-08

DR APPLICATION NUMBER: 60/144791

DR FILING DATE: 1999-07-20

DR APPLICATION NUMBER: 60/146970 APPLICATION NUMBER: PCT/US01/06520
FILING DATE: 2001-02-28
APPLICATION NUMBER: PCT/US01/17800
FILING DATE: 2001-06-01
APPLICATION NUMBER: PCT/US01/19692
FILING DATE: 2001-06-20 FILING DATE: 2000-08-22
APPLICATION NUMBER: 09/747259
STITUG DATE: 2000-12-20
no/A16744 APPLICATION NUMBER: PCT/US00/23328
FILING DATE: 2000-08-24
APPLICATION NUMBER: PCT/US00/32678
FILING DATE: 2000-12-01 APPLICATION NUMBER: PCT/US00/05841
FILING DATE: 2000-03-02
APPLICATION NUMBER: PCT/US00/14042
FILING DATE: 2000-05-22 APPLICATION NUMBER: 09/311832
FILING DATE: 1999-05-14
APPLICATION NUMBER: 09/380142
FILING DATE: 1999-08-25
APPLICATION NUMBER: 09/644848 FILING DATE: 2000-06-02 APPLICATION NUMBER: PCT/US00/23522 APPLICATION NUMBER: PCT/US99/30720 FILING DATE: 1999-12-22 APPLICATION NUMBER: PCT/US00/05601 APPLICATION NUMBER: 09/908,827
FILING DATE: 2001-07-18
APPLICATION NUMBER: PCT/US99/10733
FILING DATE: 1999-05-14 FILING DATE: 2001-06-05 APPLICATION NUMBER: 09/869599 FILING DATE: 2001-06-29 APPLICATION NUMBER: 09/816744
FILLING DATE: 2001-03-22
APPLICATION NUMBER: 09/854208
FILLING DATE: 2001-05-10 APPLICATION NUMBER: PCT/US00/15264 APPLICATION NUMBER: PCT/US99/28551 FILING DATE: 1999-12-02 APPLICATION NUMBER: 09/874503 APPLICATION NUMBER: 09/854280 FILING DATE: 2001-05-10 APPLICATION NUMBER: 60/162506 FILING DATE: 1999-10-29 APPLICATION NUMBER: 60/135750 FILING DATE: 1999-05-04 APPLICATION NUMBER: 60/132383 PCT/US01/21066 PCT/US00/34956 PCT/US01/21735

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APPLICANT: Zhang, Zenin
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REPERENCE: P3030R1C4
CURRENT APPLICATION NUMBER: US/10/035,855
CURRENT APPLICATION NUMBER: 600/105579
PRIOR APPLICATION NUMBER: 600/065579
PRIOR APPLICATION NUMBER: 600/105579
PRIOR PILING DATE: 1998-05-15
PRIOR PILING DATE: 1998-05-15
PRIOR APPLICATION NUMBER: 600/113514
PRIOR APPLICATION NUMBER: 600/113500
PRIOR FILING DATE: 1998-12-23
PRIOR APPLICATION NUMBER: 600/113430
PRIOR APPLICATION NUMBER: 600/113605
PRIOR PILING DATE: 1998-12-23
PRIOR APPLICATION NUMBER: 600/113621
PRIOR APPLICATION NUMBER: 600/113621
PRIOR APPLICATION NUMBER: 600/113621
PRIOR APPLICATION NUMBER: 600/114140
PRIOR PILING DATE: 1998-12-23
PRIOR APPLICATION NUMBER: 600/116043
PRIOR APPLICATION NUMBER: 600/116043
PRIOR APPLICATION NUMBER: 600/116574
PRIOR APPLICATION NUMBER: 600/116574
PRIOR APPLICATION NUMBER: 600/1165774
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APPLICANT: Eaton, Da
APPLICANT: Godoard,
APPLICANT: Godowski
APPLICANT: Gurney, Jame
APPLICANT: Pan, Jame
APPLICANT: Stewart,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 80, Appublication No.
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Stewart, Timothy A.
Stewart, Timothy A.
Watanabe, Colin K.
Wood, William I.
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Goddard, Audrey
Godowski, Paul J.
Gurney, Austin L.
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Pred. No. 4e-165;
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ICR APPLICATION NUMBER: 60/131291
ICR PILING DATE: 1999-05-04
ICR APPLICATION NUMBER: 60/132379
ICR FILING DATE: 1999-05-04
ICR APPLICATION NUMBER: 60/132379
ICR FILING DATE: 1999-05-04
ICR APPLICATION NUMBER: 60/132379
ICR FILING DATE: 1999-05-05
ICR FILING DATE: 1999-06-08
ICR APPLICATION NUMBER: 60/139166
ICR FILING DATE: 1999-06-09
ICR APPLICATION NUMBER: 60/146970
ICR FILING DATE: 1999-08-03
ICR APPLICATION NUMBER: 60/162506
ICR FILING DATE: 1999-08-09
ICR APPLICATION NUMBER: 60/162506
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ICR APPLICATION NUMBER: 60/162506
ICR FILING DATE: 1999-08-09
ICR APPLICATION NUMBER: 09/380142
ICR FILING DATE: 1999-08-25
ICR APPLICATION NUMBER: 09/644848
ICR FILING DATE: 2000-08-22
ICR FILING DATE: 2001-03-22
ICR APPLICATION NUMBER: 09/644848
ICR FILING DATE: 2001-05-10
ICR APPLICATION NUMBER: 09/84208
ICR APPLICATION NUMBER: 09/84208
ICR APPLICATION NUMBER: 09/854280
ICR APPLICATION NUMBER: 09/854280
ICR APPLICATION NUMBER: 09/86959
ICR APPLICATION NUMBER: PCT/US99/28551
ICR APPLICATION NUMBER: PCT/US99/30720
ICR APPLICATION NUMBER: PCT/US90/23522
ICR APPLICATION NUMBER: PCT/US90/3368
ICR APPLICATION NUMBER: PCT/US90/33
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FILING DATE: 1999-04-21
APPLICATION NUMBER: 60/131270
FILING DATE: 1999-04-27
APPLICATION NUMBER: 60/131272
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       PCT/US00/34956
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APPLICANT: Baker, Kevin P.
APPLICANT: Chen, Jian
APPLICANT: Chen, Jian
APPLICANT: Chen, Jian
APPLICANT: Goddard, Audrey
APPLICANT: Goddard, Audrey
APPLICANT: Goddwaki, Paul J.
APPLICANT: Godowski, Paul J.
APPLICANT: Godwaki, Paul J.
APPLICANT: Godwaki, Paul J.
APPLICANT: Smith, Victoria
APPLICANT: Watanabe, Colin K.
APPLICANT: Watanabe, Colin K.
APPLICANT: Wood, William I.
APPLICANT: Wood, William I.
APPLICANT: Zhang, Zemin
ITILE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
ITILE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P3430R1C42
CURRENT APPLICATION NUMBER: US/10/174,590
CURRENT FILING DATE: 2002-06-18
Prior application removed - See File Wrapper or Palm
NUMBER OF SEQ ID NOS: 612
SEQ ID NO 504
LENGTH: 339
TYPE: PRT
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PRIOR FILING DATE: 2001-02-28
PRIOR PPLICATION NUMBER: PCT/US01/17800
PRIOR PILING DATE: 2001-06-01
PRIOR APPLICATION NUMBER: PCT/US01/19692
PRIOR APPLICATION NUMBER: PCT/US01/21066
PRIOR FILING DATE: 2001-06-20
PRIOR PPLICATION NUMBER: PCT/US01/21066
PRIOR PILING DATE: 2001-06-29
PRIOR APPLICATION NUMBER: PCT/US01/21735
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Matches 339;
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PRIOR FILING DATE: 2001-07-09
PRIOR FILING DATE: 2001-07-09
NUMBER OF SEQ ID NOS: 80
SEQ ID NO 80
LENCTH: 339
TYPE: PRT
ORGANISM: Homo Sapien
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TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POI
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: B3430R1C104
CURRENT APPLICATION NUMBER: US/10/176,758
CURRENT FILING DATE: 2002-06-21
Prior Application removed - See File Wrapper or Pa
NUMBER OF SEQ ID NOS: 612
SEQ ID NO 504
LENGTH: 339
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APPLICANT: Baker, Kevin P.
APPLICANT: Chen, Jian
APPLICANT: Desnoyers, Luc
APPLICANT: Goddard, Audrey
APPLICANT: Goddwsk., Paul
APPLICANT: Gurney, Austin II
APPLICANT: Smith, Victoria
APPLICANT: Watanabe, Colin
APPLICANT: Watanabe, Colin
APPLICANT: Watanabe, Colin
APPLICANT: Zhang Zemin
APPLICANT: Zhang Zemin
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US-10-174-590-504
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Best Local Similarity
Matches 339; Conserv
                                                                                                                                                                                                                                         Query Match 100.0%; Score 1879; DB 14; Best Local Similarity 100.0%; Pred. No. 4e-165; Matches 339; Conservative 0; Mismatches 0;
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                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM: Homo Sapien
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Goddard, Audrey
Godowski, Paul J.
Gurney, Austin L.
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Smith, Victoria
Watanabe, Colin K.
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D. US20030008353A1
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US-10-175-737-504
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Best Local S
Matches 339
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APPLICANT: Watanabe, Colin K.
APPLICANT: Watanabe, Colin K.
APPLICANT: Watanabe, Colin K.
APPLICANT: Watanabe, Colin K.
APPLICANT: Chang, Zemin
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P3430R1C50
CURRENT APPLICATION NUMBER: US/10/175,737
CURRENT FILING DATE: 2002-06-19
Prior Application removed - See File Wrapper or Palm
NUMBER OF SEQ ID NOS: 612
SEQ ID NO 504
LENGTH: 339
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APPLICANT: Chen, Jian
APPLICANT: Desnoyers, Luc
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Similarity 100.0%; Pred. No. 4e-165;
39; Conservative 0; Mismatches 0
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                   GTWNRAYSPLHGGSGSYSVCSNSDTKTRTASGYGGTRRR 339
                                                                                    GATSGFGSAFTGQQGYENSGPGFWTGLGTGGILGYLFGSNRAATPFSDSWYYPSYPPSYP
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Godowski, Paul J.
Gurney, Austin L.
                                                                   GATSGFGSAFTGQQGYENSGFGFWTGLGTGGILGYLFGSNRAATFFSDSWYYFSYFFSYF
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o. US20030013153A1
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               APPLICATION NUMBER: 60/077632 FILING DATE: 1998-03-11 APPLICATION NUMBER: 60/077649
FILING DATE:
1998-03-11
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CURRENT PILLING DATE: 1937-00-1-0-1
CURRENT PILLING DATE: 2002-06-18
PRIOR APPLICATION NUMBER: 10/052586
PRIOR APPLICATION NUMBER: 60/059263
PRIOR PILLING DATE: 1997-09-18
PRIOR APPLICATION NUMBER: 60/06250
PRIOR APPLICATION NUMBER: 60/06250
PRIOR APPLICATION NUMBER: 60/063120
PRIOR APPLICATION NUMBER: 60/063120
PRIOR PILLING DATE: 1997-10-24
PRIOR APPLICATION NUMBER: 60/063121
PRIOR APPLICATION NUMBER: 60/063121
PRIOR APPLICATION NUMBER: 60/063121
PRIOR PILLING DATE: 1997-10-24
PRIOR APPLICATION NUMBER: 60/063540
PRIOR PILLING DATE: 1997-10-28
PRIOR APPLICATION NUMBER: 60/063540
PRIOR APPLICATION NUMBER: 60/063541
PRIOR APPLICATION NUMBER: 60/063541
PRIOR APPLICATION NUMBER: 60/063541
PRIOR APPLICATION NUMBER: 60/063544
PRIOR APPLICATION NUMBER: 60/063544
PRIOR APPLICATION NUMBER: 60/063734
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APPLICANT: Chen, Jian
APPLICANT: Desnoyers, Luc
APPLICANT: Goddard, Audrey
APPLICANT: Godowski, Paul ;
APPLICANT: Gurney, Austin I
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APPLICANT: Wood, William I.
APPLICANT: Zhang, Zemin
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P9430R1041
FILING DATE: 1997-12-17
APPLICATION NUMBER: 60/068017
FILING DATE: 1997-12-18
APPLICATION NUMBER: 60/077450
FILING DATE: 1998-03-10
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Watanabe, Colin K.
Wood, William I.
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Gurney, Austin
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OR APPLICATION NUMBER: 60/088029
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OR FILING DATE: 1998-06-04
OR APPLICATION NUMBER: 60/088167
OR APPLICATION NUMBER: 60/088202
OR FILING DATE: 1998-06-05
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OR APPLICATION NUMBER: 60/088217
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OR APPLICATION NUMBER: 60/088738
OR FILING DATE: 1998-06-10
OR APPLICATION NUMBER: 60/088811
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OR APPLICATION NUMBER: 60/088824
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DR FILING DATE: 1998-06-16
DR APPLICATION NUMBER: 60/089514
DR FILING DATE: 1998-06-16
DR APPLICATION NUMBER: 60/089538
DR FILING DATE: 1998-06-17
DR APPLICATION NUMBER: 60/089598
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DR APPLICATION NUMBER: 60/089653
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DR APPLICATION NUMBER: 60/087759
DR FILING DATE: 1998-06-02
DR FILING DATE: 1998-06-03
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DR APPLICATION NUMBER: 60/088025
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                                                                                                                               IPQLKCVGGTAGCDSYTPKVIQCQNKGWDGYDVQWECKTDLDIAYKFGKTVVSCEGYESS
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Pred. No. 4e-165;
Mismatches 0
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DR FILING DATE: 1998-05-07
DR APPLICATION NUMBER: 60/084643
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DR APPLICATION NUMBER: 60/085573
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DR APPLICATION NUMBER: 60/085580
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DR APPLICATION NUMBER: 60/085700
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DR APPLICATION NUMBER: 60/085700
DR FILING DATE: 1998-05-15
DR APPLICATION NUMBER: 60/085023

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DR APPLICATION NUMBER: 60/083496
DR FILING DATE: 1998-04-29
DR FILING DATE: 1998-05-05
DR FILING DATE: 1998-05-05
DR FILING DATE: 1998-05-05
DR FILING DATE: 1998-05-06
DR FILING DATE: 1998-05-06
DR APPLICATION NUMBER: 60/084619
DR APPLICATION NUMBER: 60/084639
DR APPLICATION NUMBER: 60/084639
DR APPLICATION NUMBER: 60/084639
DR FILING DATE: 1998-05-07
DR APPLICATION NUMBER: 60/084639
DR FILING DATE: 1998-05-07

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FILLING DATE: 1998-04-22
APPLICATION NUMBER: 60/083322
FILING DATE: 1998-04-28
APPLICATION NUMBER: 60/083495

APPLICATION NUMBER: 60/083495 FILING DATE: 1998-04-29

PRIOR PRIOR PRIOR PRIOR PRIOR

APPLICATION NUMBER: 60/082569 FILING DATE: 1998-04-21 APPLICATION NUMBER: 60/082704 FILING DATE: 1998-04-22 APPLICATION NUMBER: 60/082797

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FILING DATE: 1998-04-09
APPLICATION NUMBER: 60/081838
FILING DATE: 1998-04-15
APPLICATION NUMBER: 60/082568
APPLICATION NUMBER: 60/082568
FILING DATE: 1998-04-21

PRIOR PRIOR

PILING DATE: 1998-04-08 APPLICATION NUMBER: 60/081195 FILING DATE: 1998-04-08 APPLICATION NUMBER: 60/081070 APPLICATION NUMBER: 60/081049 R FILING DATE: R APPLICATION N R FILING DATE:

NUMBER: 60/080107

1998-03-27 1998-03-31

FILING DATE:
APPLICATION

: 1998-03-27 NUMBER: 60/079786

NUMBER: 60/079664 NUMBER: 60/078939 NUMBER: 60/078886

1998-03-20 1998-03-20

APPLICATION NUMBER: 60/080327 FILING DATE: 1998-04-01 APPLICATION NUMBER: 60/080333 APPLICATION NUMBER: 60/080194 FILING DATE: 1998-03-31 R FILING DATE:
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60/087208 60/087098 NUMBER: 60/086486 NUMBER: 60/086392

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APPLICANT: Baker, Kevin P.
APPLICANT: Chen, Jian
APPLICANT: Chen, Jian
APPLICANT: Desnoyers, Luc
APPLICANT: Goddard, Andrey
APPLICANT: Goddwski, Paul J.
APPLICANT: Goddwski, Paul J.
APPLICANT: Goddwski, Paul J.
APPLICANT: Smith, Victoria
APPLICANT: Smith, Victoria
APPLICANT: Watenabe, Colin K.
APPLICANT: Wood, William I.
APPLICANT: Wood, William I.
APPLICANT: Zhang, Zemin
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P3430R1C68
CURRENT APPLICATION NUMBER: US/10/176, 483
CURRENT APPLICATION DATE: 2002-06-20
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 504, Application US/10176483 Publication No. US20030017541A1 GENERAL INFORMATION:
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                     GTWNRAYSPLHGGSGSYSVCSNSDTKTRTASGYGGTRRR 339
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                              Sequence 504, Application US/10176914
Publication No. US20030017543A1
GENERAL INFORMATION:
APPLICANT: Baker, Kevin P.
APPLICANT: Chen, Jian
APPLICANT: Codenry Luc
APPLICANT: Goddard, Audrey
APPLICANT: Godowaki, Paul J.
APPLICANT: Godowaki, Paul J.
APPLICANT: Garney, Austin L.
APPLICANT: Pan, James
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US-10-176-914-504
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APPLICANT:
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Smith, Victoria Watanabe, Colin Wood, William I.

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RESULT 12
US-10-176-749-504
; Sequence 504, Applica
; Publication No. US200:
; GENERAL INFORMATION:
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APPLICANT: Chen, Jian
APPLICANT: Chen, Juc
APPLICANT: Goddard, Audrey
APPLICANT: Godowski, Paul J
APPLICANT: Godowski, Paul J
APPLICANT: Gurney, Austin I
APPLICANT: Pan, James
APPLICANT: Watanabe, Colin
APPLICANT: Wood, William I.
APPLICANT: Wood, William I.
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TITLE OF INVENTION: ACIDS ENCODING THE SAME

FILE REFERENCE: P3430R1C76

CURRENT APPLICATION NUMBER: US/10/176,749

CURRENT FILING DATE: 2002-06-20

Prior application removed - See File Wrapper or Palm

NUMBER OF SEQ ID NOS: 612

SEQ ID NO 504

LENGTH: 339

TYPE: PRT
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                           301 GTWNRAYSPLHGGSGSYSVCSNSDTKTRTASGYGGTRRR 339
                                                                                          241
                                                                                                                          241 GATSGFGSAFTGQQGYENSGPGFWTGLGTGGILGYLFGSNRAATPFSDSWYYPSYPPSYP
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GTWNRAYSPLHGGSGSYSVCSNSDTKTRTASGYGGTRRR
                                                                                             GATSGFGSAFTGQQGYENSGPGFWTGLGTGGILGYLFGSNRAATPFSDSWYYPSYPPSYP
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Godowski, Paul J.
Gurney, Austin L.
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RESULT 14
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                                     ; ORGANISM: Homo US-10-176-915-504
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; ORGANISM: Homo Sapien
US-10-176-914-504
                                                                       Prior Application removed -
NUMBER OF SEQ ID NOS: 612
SEQ ID NO 504
LENGTH: 339
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                           APPLICANT: Baker, Kevin P.
APPLICANT: Chen, Jian
APPLICANT: Desnoyers, Luc
APPLICANT: Goddard, Audrey
APPLICANT: Goddwski, Paul
APPLICANT: Gurney, Austin 1
APPLICANT: Pan, James
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TITLE OF INVENTION: SCCEETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC TITLE OF INVENTION: ACIDS ENCODING THE SAME
PILE REPERENCE: P3430R1C83
CURRENT PAPLICATION NUMBER: US/10/176,914
CURRENT FILING DATE: 2002-06-20
Prior Application removed - See File Wrapper or Palm
NUMBER OF SEQ ID NOS: 612
SEQ ID NO 504
LENGTH: 339
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 Query Match
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                                                                                                                                                            APPLICANT: Smith, Victoria
APPLICANT: Watanabe, Colin K.
APPLICANT: Wood, William I.
APPLICANT: Wood, William I.
APPLICANT: Chang, Zemin
APPLICANT: Chang, Zemin
APPLICANT: Chang, Zemin
ACIDS ENCODING THE SAME
FILE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
CIRCLE REPERENCE: P3430R1C110
CURRENT APPLICATION NUMBER: US/10/176,915
CURRENT FILING DATE: 2002-06-21
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Gurney, Austin L.
Pan, James
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Pred. No. 4e-
0; Mismatches
                                                                                                                                                  See File Wrapper
 Score 1879;
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Sequence 504, Application US/10173706

Publication No. US20030022293A1

GENERAL INFORMATION:

APPLICANT: Baker, Kevin P.

APPLICANT: Chen, Jian

APPLICANT: Godowski, Paul J.

APPLICANT: Godowski, Paul J.

APPLICANT: Gurney, Austin L.

APPLICANT: Pan, James

APPLICANT: Smith, Victoria

APPLICANT: Watanabe, Colin K.

APPLICANT: Watanabe, Colin K.

APPLICANT: Wood, William I.

APPLICANT: Do INVENTION: ACIDS ENCODING THE SAME

FILE REFERENCE: P3430R1C7

CTIDENT ADDRIVENTION: ACIDS ENCODING THE SAME

FILE REFERENCE: P3430R1C7
                                                                                                                                                                                                                                                                                                                 CURRENT APPLICATION NUMBER: US/10/173,706
CURRENT FILING DATE: 2002-06-17
Prior Application removed - See File Wrapper
NUMBER OF SEQ ID NOS: 612
SEQ ID NO 504
LENGTH: 339
TYPE: PRT
ORGANISM: Homo Sapien
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US-10-173-706-504
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                                                                                                                                                                                                                                                Local Similarity
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100.0%; Pred. No. 4e-165;
tive 0; Mismatches 0;
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Db Search Job tin	Ş	망	ঠ	Db	გ
Db 301 GTWNRAYSPLHGGSGSYSVCSNSDTKTRTASGYGGTRRR 339 Search completed: July 14, 2005, 20:37:49 Job time: 107.864 secs	301 GTWNRAYSPLHGGSGSYSVCSNSDTKTRTASGYGGTRRR 339	241 GATSGFGSAFTGQQGYENSGPGFWTGLGTGGILGYLFGSNRAATPFSDSWYYPSYPPSYP 300	241 GATSGFGSAFTGQQGYENSGPGFWTGLGTGGLLGYLFGSNRAATPFSDSWYYFSYPPSYP 300	181 VLLGTAFVVYKLFLSDGQYSPPPYSBYPPFSHRYQRFTNSAGPPPDGFKSEFTGPQNTGH 240	181 VLLGIAFVVYKLFLSDGQYSPPPYSBYPPFSHRYQRFTNSAGPPPPGFKSEFTGPQNTGH 240

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Listing first 45 summaries
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              GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
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RESULT 2 T21956

hypothetical protein F38B7.3 - Caenorhabditis elegans

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C;Date: 15-Oct-1999 #sequence_rev
C;Accession: T21956
probable transforming
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A;Residues: 1-1400 <WIL>
A;Cross-references: UNIPROT:Q9NA90; EMBL:AL117201; PIDN:CAB55064.1; CESP:Y53H1C.2
A;Experimental source: clone Y53H1C
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A;Reference number: Z21044
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A;Map position: 5
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                                                                                                                                                                                                                                                                                                                                                                                                                                                              श
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Gene: CESP:Y53H1C.2
A;Introns: 35/3; 78/2; 125/3; 172/3; 224/3; 234/2; 477/1; 527/1; 630/1; 1205/3; 1268/1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; Molecule type: DNA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local S
Matches 46
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Best Local Similarity
Matches 38; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           257
                                                                                                                                                                                                                                                                                                                                                                                                                                                              197 GQYSPPPYS--BYPPFSHRYQRFTNSAGPP-PPGFKSEFTGPQNTGHGATSGFGSAFTGQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 192 GPQVPPAYGQYP-----QPGYPQPAGVPTSSHTTVIVRDGGYGGGYGGYGGYGG---GGGGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          197 GQYSPPPYSEYPPFSHRYQRFTNSAGPPPPGFKSEFTGPQNTGHGATSGFGSAFTGQQGY
                                                                                                                                                                                                                     -WNRAYSPLHGGSGSYSV 319
                                                                                                                                                                                                                                                                                                                                     QGYENSGPGFWTGLGTGGILGYLFGSNRAATP-----FSDSWYYPSYPPSYPGT-
                                                                                                                                                                                                                                                                                                                                                                                                 GPPSPTPSSICDFPVQSQRSQRFGAFEGAQGAPGAQRGYQGP----HSPVPG---ALTGS
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                                                                                                                                                         AYEHAIRPYPGDTGSYQV 846
                                                                                                                                                                                                                                                                               QA---SGP---FGAPPGAPHGY--GAPLQAPPQAPYGYDPSRYQDPSTYPAPPPILPGSA
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   protein (can) -
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33.3%; Pred. No. 0.77;
rative 10; Mismatches 52
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1%; Pred. No. 0.18;
13; Mismatches 59
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      human
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 1400;
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Best Local :
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333
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Fus-like protein - human (fragment)
C.Species: Homo sapiens (man)
C.Species: Homo sapiens (man)
C.Jate: 21-Dec-1956 #sequence_revision 06-Jun-1997 #text_change 09-Jul-2004
C.Accession: G02127
R.Itoh, K.; Kawase, M.
submitted to the EMBL Data Library, September 1995
A;Reference number: G09199
A;Accession: G02127
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Kolecule type: mana
A;Kolecule type: mana
A;Residues: 1-528 cITO>
A;C;Superfamily: RNA-binding protein, EMS type; ribonucleoprotein repeat homology
F;289-364/Domain: ribonucleoprotein repeat homology <RRM>
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C;Date: 13-Jan-1995 #sequence_revision 13-Jan-1995 #text_change 09-
C;Date: 13-Jan-1995 #sequence_revision 13-Jan-1995 #text_change 09-
C;Accession: S26058
R;von Lindern, M.; Fornerod, M.; van Baal, S.; Jaegle, M.; de Wit,
Mol. Cell. Biol. 12, 1687-1697, 1992
Mol. Cell. Biol. 12, 1687-1697, 1992
A;Title: The translocation (6;9), associated with a specific subtyr
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A;Residues: 1-2090 <VON>
A;Cross-references: UNIPROT:P35658; EMBL:X64228; NID:g29652; PIDN:CAA45535.1; PID:g29653
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Best Local Similarity
Matches 54; Conserv
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                                                                                                                                                                                                                                                                                                                              185 IAFVVYKLFLSDGQYSPPPYSEYPPFSHRYQRFTNSAGPPPPGFKSEFTG-----PQNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  138 YTELGLQKLKESGKQHGFASFSDYYYKWSSADSCNM---SGLITIVVLLGIAFVVYKLFL 194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            292 YPSY-----PPSYPGTWNRAYSPLHGGSGSYSVCSNSDTKTRTASGYGGTR 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 57;
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YGG 335
                                                                                                                                                                                                                     GHGATSGFGSAFTGQQGY--ENSGPGFW---TGLGTGGILGYLFGSNRAATPFSDSWYYP 293
                                                                                                                                                                                                                                                                           -----TDTGYGQSSYSSYG----
                                                                                                                                                                                                                                                                                                                                                                                  DYTQQATQSYGAYPTQPGQGYSQQSSQPYGQQSYSGYSQS-
                                                                                                                                                                                                                                                                                                                                                                                                                                        DYTELGLOXL------KESGKQHGFASFSDYYYKWSSADSCNMSGLITIVVLLG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |:: | || : | || : | || || : | APTFGSLSQQTSGFGTQSSGFSGFGSGTGGFSGSNNS---
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                                                      SYGQQPSYGGQQQSYGQQQSYNPSGYGQQNQYNSSSSGSGGGGSY----GQDQSSMSGSG
                                                                                                            SY--PPSYPGT----WNRAYSPL----
                                                                                                                                                               GYGSTGGYGSSQSSYGQQSSYPGYGPQPTPSSTSG----SYGSSSQTSSYGQP---P
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5.8%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              26;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 108.5;
Pred. No. 0.8;
26; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 2;
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                                                                                                         --HGGSGSYSVCSNSDTKTRTASG 332
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                                                                                                                                                                                                                                                                           -QSQNTGYGTQSAPQ--
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RESULT 7
T04011
T04011
C;Species: Arabidopsis thaliana (mouse-ear cress)
C;Date: 30-Apr-1999 #sequence_revision 30-Apr-1999 #tc
C;Accession: T04011
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MOI. Gen. Genet. 211, 446-454, 1988

A;Title: Structural analysis of the 5' regions of yeast A;Reference number: 825439; MUID:88216256; PMID:2835632 A;Accession: 825441
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C;Superfamily: beta-fructofuranosidase
C;Keywords: glycosidase; hydrolase
E;1-19/Domain: signal sequence #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Molecule type: DNA
A;Residues: 1-74 <HO2>
A;Cross-references: EMBL:X07570
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             beta-fructofuranosidase (EC 3.2.1.26) 1 precursor - N;Alternate names: invertase; saccharase C;Species: Saccharomyces cerevisiae C;Date: 23-Apr-1993 #sequence_revision 23-Apr-1993 †C;Accession: S27372; 825441
                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Cross-references: UNIPROT:P10594;
R;Hohmann, S.; Gozalbo, D.
Mol. Gen. Genet. 211, 446-454, 1988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Molecule type: DNA
A; Residues: 1-532 < HOH>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            submitted to the EMBL Data Library, A; Reference number: S27372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    R; Hohmann, S.
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Best Local S
Matches 92
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                                                                                                                                                                                RAYSPLHGGSGSYSVCSNSDTK 326
                                                                                                                                                                                                                                                    GFGSAFTGQQGYENSGPGFWTGLGTGGILGYLFGSNRAATPFSDSWYYPSYPPSYPGTWN 304
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                                                                                                                                             SSMSLVRPFSLNTBYQANPETB
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                                                                                                                                                                                                                                                                                                                            QYSPP----PYSEYPPFSHRYQRFTNSAGPPPPG-FKSEFTGPQNTGH-----GATS
                                                                                                                                                                                                                                                                                                                                                                                               KESGKQHGFASFSDYYY----KWSSADSCNMSGLITIVVLLGI-AFVVYKLFLSDG----
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5.7%; Score 107; DB 24.1%; Pred. No. 1.1;
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               #text_change
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A;Map position: 5

A;Introns: 48/1; 96/1; 178/3; 255/3; 292/3; 337/3; 424/2

C;Superfamily: kidney bean purple acid phosphatase; phosphoesterase core homology core in the properties of the pro
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A;Molecule type: DNA
A;Residues: 1-748 <BEV>
A;Cross-references: UNIPROT:Q9T0G5; EMBL:AL049481
A;Cross-references: Cultivar Columbia; BAC clone
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Best Local :
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Note: T5L19.200
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                                                                                                                                                                                                                                                                                                                                                                                            Similarity
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Similarity 24.7%;
HTNNGQVGDSYLNVFEPLISKVPYMVIAGNHEDDYQNFTN----
                                                         FLSDGQYSPPPYSEYPPF----
                                                                                                                                                                           --TELGLQKLKESGKQHGFASFSDY-YYKWSSADSC---NMSGLITIVVLLGIAFVVYKL
                                                                                                                                                                                                                                                                                                   VQWECKTDLDIAYKFGKTVVSCEG-YESSEDQYVLRG---
                                                                                                                     ASRKFSFKTLSNDPQSYKVCVFGDLGYWHGNSTESIIKHGLAGDFDFIVHLG--DIAYDL
                                                                                                                                                                                                                                          VVWNTFSEVSQDVTYGKTGSGATSTAKGSSEAWVFGGITRYRHKAIMTGLEYSTEYDYTI
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Pred. No. 1.
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Pred. No. 1
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YQKRFSVPDN-G
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A; Molecule type: DNA
A; Residues: 1-3300 <COL>
A; Cross-references: GB: Z95324; GB: AL123456; NID: g3261760; PIDN: CAB08587.1; PID: e1299834.
                                                                                                                                                                                                                                                                            R;Cole, S.T.; Brosch, R.; Parkhill, J.; Garnier, T.; Churcher, C.; Harris, D.; Connor, R.; Davies, R.; Devlin, K.; Feltwell, T.; Gentles, S.; Hamlin, N.; Ho Rajandream, M.A.; Rogers, U.; Rutter, S.; Seeger, K.; Skelton, S.; Squares, S. Nature 393, 537-544, 1998
A;Authors: Sqares, R.; Sulston, J.E.; Taylor, K.; Whitehead, S.; Barrell, B.G. A;Title: Deciphering the biology of Mycobacterium tuberculosis from the complet A;Reference number: A70500; MUID:98295987, PMID:934230
A;Accession: D70575
A;Status: preliminary; nucleic acid sequence not shown; translation not shown
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submitted to the EMBL Data Library, September 1999
A;Reference number: Z21047
A;Accession: T31611
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         probable PPE protein - Mycobacterium tuberculosis (strain H37RV)
C;Species: Mycobacterium tuberculosis
C;Date: 17-Jull1998 #sequence_revision 17-Jul-1998 #text_change 22-Oct-1999
C;Accession: D70575
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A;Residues: 1-1585 <WIL>
A;Cross-references: EMBL:AL117200; NID:e1549770; PIDN:CAB55050.1; CESP:Y50E8A.g
A;Experimental source: clone Y50E8A
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                                                                      Query Match
Best Local
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Best Local Similarity
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Gene; CESP;Y50E8A.g
Introns: 25/3; 60/1; 133/2; 217/3; 270/3; 337/2; 400/1; 746/2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               195 SDGQYSPPPYSEYPPFSHRYQRFTNSAGPPPPGFKSEFTGPQNTGHGATSGFGSAFTGQQ 254
                                                                        Similarity
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38.0%;
--PPPPGFKSEFTGPQ----NTGHGATSGFGSAFTGQQGYENSGPGFW
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                                             ..
                                                                      Score 105;
Pred. No.
                                               Mismatches
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A;Map position: 7p15-7p15
A;Introns: 2/3; 14/3; 51/3; 100/3; 171/1; 205/1; 232/1; 253/1; 293/1; 334/1 C;Superfamily: helix-destabilizing protein; ribonucleoprotein repeat homolo; C;Keywords: alternative splicing; duplication; nucleus; RNA binding P;1-2,15-353/Domain: heterogeneous ribonuclear particle protein A2 <HA2> F;22-88/Domain: ribonucleoprotein repeat homology <RRM1>
                                                                                                                                                                                                                                                                                                                                        A;Note: this protein was shown to be ADP-ribosylated R;Bauw, G.; Rasmussen, H.H.; Van Den Bulcke, M.; Van Damme, Electrophoresis 11, 528-536, 1990
A;Title: Two-dimensional gel electrophoresis, protein electra;Reference number: A61002; MUID:91031404; PMID:1699755
A;Accession: E61013
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R;Prasad, S.; Walent, J.; Dritechlo, A.
Biochem. Biophys. Res. Commun. 204, 772-779, 1994
A;Title: ADP-ribosylation of heterogeneous ribonucleoproteins
A;Reference number: PC2221; MUID:95071393; PMID:7980541
A;Accession: PC2222
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R;Biamonti, G.; Ruggiu, M.; Saccone, S.; della Valle, G.;
Rucleic Acids Res. 22, 1996-2002, 1994
A;Title: Two homologous genes, originated by duplication, A;Reference number: S48057; MUID:94301779; PMID:8029005
A;Accession: S48057
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A;Sterence - A56845
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C;Date: 22-Jun-1990 #sequence revision 22-Jun-1990 #text change 09-Jul-2004
C;Accession: A56465; B34504; A34504; S48057; PC2222; E61013; B56845
R;Kozu, T.; Henrich, B.; Schaefer, K.P.
Genomics 25, 365-371, 1995
                                                                                                                                                                                                                                                                               A; Molecule type: protein
A; Residues: 63-69; 204-212; 214-220, 'F', 221-228 <BAU>
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A;Molecule type: DNA
A;Residues: 1-353 <BIA>
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A; Residues: 1-353 <BUR>
A; Cross-references: GB:
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N;Alternate names: heterogeneous ribonuclear particle
N;Contains: heterogeneous nuclear ribonucleoprotein A;
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A; Residues: 1-2,15-353 <BU2>
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A; Residues: 1-353 < KOZ>
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                                                                                                                                                                                                                     A;Gene: GDB:HNRPA2B1
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l electrophoresis, protein electroblotting and microsequencim
MUID:91031404; PMID:1699755
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RESULT
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A;Residues: 1-85,'8',8"-346,'8',348-373 <GOO2>
A;Residues: 1-85,'8',8"-346,'8',348-373 <GOO2>
A;Cross-references: EMBL:L02956; NID:g214744; PIDN:AAA49949.1; PID:g214745
C;Superfamily: helix-destabilizing protein; ribonucleoprotein repeat homology cRRM1>
F;28-94/Domain: ribonucleoprotein repeat homology <RRM1>
F;119-185/Domain: ribonucleoprotein repeat homology <RRM2>
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Nucleic Acids Res. 21, 999-1006, 1993
A;Title: Three new members of the RNP protein family in Xenopus.
A;Reference number: 840774, MUID:93197168; PMID:8451200
A;Accession: S40777
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                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 heterogeneous ribonuclear particle protein A3 - African clawed N;Alternate names; heterogeneous nuclear ribonucleoprotein A3 C;Species: Xenopus laevis (African clawed frog) C;Date: 31-Dec-1993 #Bequence_revision 02-Aug-1994 #text_change C;Accession: $40777; $41738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              र्
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Residues: 1-373 <GOO1>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Molecule type: mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Status: nucleic acid sequence not shown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                   GYESSEDQYVLRGSCGLEYNLDYTE-----LGLQKLKESGKQHGFA--SFSDYYYKWS 166
                                                                                                                                                                                                                                                                                                                                     TVDK----
                                                                                                                                                                                                                                                                                                                                                                                                                 GQYSPPPYSEYPPFSHRYQRFTNSAGPPPPGFKSEFTGPQNTGHGATSGFGSAFTGQQGY 256
                                                                                                                       PSYPGTWNRAYSPLHGGSGSYSVCSNSDTKTRTASGYGG 335
                                                                                                                                                                                                                                                                                         GFKSEFTG------PQNTGHGATSGFGS-----
                                                                                                                                                                                                                                                                                                                                                                        SADSCHMSGLITIVVLLGIAFVVYKLFLSDGQYSPPPYSBYPPFSHRYQRFTNSAGPPPP 226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ENSGPGFWT-GLGTGGILGYLFGSNRAATPFSDSWYYPSYPPSY-----PGTWNRA- 306
                                                                                GNYGGQQQSNYGPMXGGS----PSGRSSGGRGSGPYGG
                                                                                                                                                                GNYGGGPGYGGRGYGGSPGYGNQGGGY--GGGGGGYDGYNBSGNPGGGNYNDF-----
                                                                                                                                                                                                                                                GGGSNFMGRGGNYGGGDGGNFGRGGGGFGNRGGYGGGGGRGGGGTGGGGDGYNGFGGDG 269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PYGGGNYGP-
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GNFGPGPGSNFRGGSDGY----GSGRGFGDGYNGYGGGPGGGNFGGSPGYGG---GRGGY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -----YSPLHGGSGSYSVCSNSDTKTRTASGYGGTRR 338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5.5%; Score 103.5; larity 21.5%; Pred. No. 1.3; Conservative 25; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
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                                                                                                                                                                                                       AFTGQQGYENSGPGFWTGLGTGGILGYLFGSNRAATPFSDSWYYPSYP 296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5.5%; Score 104; 26.6%; Pred. No. 1
                                                                                                                                                                                                                                                                                                                                 ---IVVQKYHTINGH-----NCEVKKALSKQEMQTASAQRGRG 209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 13,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   87;
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C;Accession: T10519
R;Chen, L.; Fischer, H.
submitted to the EMBL Data Library,
A;Reference number: Z17066
A;Accession: T10519
                                                                                                                                                                                                                                                                                                                                                                                                                pre-pro-legumin - arrowhead
C;Species: Sagittaria sagittifolia (arrowhead)
C;Date: 16-Jul-1999 #sequence_revision 16-Jul-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT
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                                                                                                                                                                                                                                                                          A; Molecule type: mRNA
A; Residues: 1-794 < CHE>
                                                                                                                                                                                                                                                                                                             A;Status: preliminary; translated from GB/EMBL/DDBJ
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C; Superfamily: ribonucleoprotein repeat homology
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C;Accession: T45886
R;Bloecker, H.; Mewes, H.W.; Lemcke, K.; Ma;
submitted to the Protein Sequence Database,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RNA-binding protein cp29 protein - Arabidopsis thaliana
N;Alternate names: protein F4P12.160
C;Species: Arabidopsis thaliana (mouse-ear cress)
C;Date: 04-Feb-2000 #sequence_revision 04-Feb-2000 #text_change 16-Aug-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Map position: 3
A; Introns: 129/3; 163/3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A,Cross-references: EMBL;AL132966
A,Experimental source: cultivar Columbia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Molecule type: DNA
A; Residues: 1-342 <BLO>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Reference number: Z23016
A; Accession: T45886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Status: preliminary
                                                                                                                                                                                                                   ;Cross-references: UNIPROT:P93560; EMBL:Y09117; NID:e1008798; PID:e284333;Experimental source: tissue_type seed;Keywords: seed; storage protein
                                                                                                                                                  Matches
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Best Local
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 381 ESRGQSGP-YPGGQGIGGQTG---
                                    254 QGYENSGPGFWTGLGTGGILGYLFGSNRAATPF---SDSWYYPSYPPSYPGTWNRAYSPL
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                                                                                                                                                  49;
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                                                                                                                                                                 Similarity
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Similarity 21.5%;
                                                                        GQPGPFPGGQTGPFQGRDHGPGFGGQTGPFPGG---QQTGPYRPGMGGQTGPFSAGQGSQ 380
                                                                                                          GOYSPPPYSEYPPFSHRYQ--RFTNSAGPPPPGFKSBFTGPQNTGHGATSGFGSAFTG-Q
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   KCSSPABYPSRFVRNVAVSSDFEVEEDDMFADGDDSAPVERNSFSPDLKLFVGNLSFNVD
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                                                                                                                                                            5.4%;
32.9%;
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                                                                                                                                            Score 101.5; D
Pred. No. 4.5;
10; Mismatches
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Pred. No. 1.4;
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                                                                                                                                                                                                                                                                                                                                                                      October 1996
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                                                                                                                                                                                                                                                                                                                                                                                                                       16-Jul-1999 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -GYGSERGGGYGSQRSG-
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·PFSRGSGSQGSRGQSGSYPGGHG----I
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                                                                                                                                            Gaps
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424
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RESULT 15
T51890
related to Nup98-Nup96 precursor [imported] - Neurospora crassa
N;Alternate names: protein B23111.20
C;Species: Neurospora crassa
C;Date: 20-Oct-2000 #sequence_revision 20-Oct-2000 #text_change 20-Oct-2000
C;Accession: T51890
R;Schulte, U.; Aign, V.; Hoheisel, J.; Brandt, P.; Fartmann, B.; Holland, R.; Nyakatura, submitted to the Protein Sequence Database, August 2000
A;Reference number: Z25858
A;Accession: T51890
A;Status: preliminary
A;Molecule type: DNA
A;Cessidues: 1-1844 <SCH>
A;Cross-references: EMBL-AL391572; GSPDB:GN00116; NCSP:B23111.20
A;Experimental source: BAC clone B23111; strain OR74A
C;Genetics:
A;Genetics:
A;Genetics:
A;Anp position: 6
A;Introns: 34/1; 1281/3
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Search completed: July 14, 2005, 20:33:16 Job time: 31.2757 secs
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                                                                                                                                                                                                                                                                                                                                                               Query Match 5.4%; Score 101; DB 2; Length 1844; Best Local Similarity 35.0%; Pred. No. 13; Matches 48; Conservative 8; Mismatches 51; Indels 30; Gaps
                                                                                         118 FGSNTAT-TGTGFGSGG 133
                                                                                                                                      319 VCSNSDTKTRTASGYGG 335
                                                                                                                                                                                                                      265 T----GLGTGGILGY--LFGSNRAATPFSDSWYYPSYPPSYPGTWNRAYSPLHGGSGSY8 318
                                                                                                                                                                                                                                                                        70 TNTAGGEGTGGGEGAKPAFGSTPATT---GGGLEGSSTTATTGT------GGEGSTG 117
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Result
No.
                                                                                                                                                                                                                                                                                                                                                               Minimum DB
Maximum DB
                                                                                                                                                                                                                                                                                                                                                                                                                       Scoring table:
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Maximum Match 100%
Listing first 45 su
                                                                                                                                                                                                                                                                                                                                                                                                   Searched:
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Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                     Total number of hits satisfying chosen parameters:
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  Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
 1879
1879
1876
1428
1427
1427
1418
1136.5
361.5
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123.5
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seq length: 2000000000
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1: uniprot_sprot:*
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Gapop 10.0 , Gapext 0.
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1879
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Q97633
Q9UNZ3
Q9UNZ3
Q9R3Q0
Q8C6G7
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Q9BC81
Q8R233
Q6AXN2
Q6X2P1
Q22254
Q78303
Q78888
Q01385
Q9UVL3
Q9UVL3
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      3 neurospora
5 neurospora
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6 oryza sativ
7 xenopus lae
8 yarrowia la
2 neurospora
1 caenorhabdi
4 drosphila
7 burkholderi
3 brachydanio
8 homo sapien
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∵⊇	N.A. 96; Po	itani Takaya -1999)	(OCT-2001)	8 N.A.	on and initial an cDNA sequences." Acad. Sci. U.S	w., Touchman C., Grimwood .I., Skaleka Marra M.A.,	Worley , Muzny lton B., Madan A.	, Soares .J., Usd oquellan McEwan P	., Zeebe , Jordan	FROM N.A. erus; 2388257; Pu 23871., Fei	etazoa; theria; 606;	(TrEMBLrel. 19, L (TrEMBLrel. 28, L) Protein MGC8721 1; Synonyms=foap-7	PRBLIMINARY					0000
Chui C., C J., Grimald	PubMed=12975309; A.L., Abaya E.,	K., Yajima ma K.; to the EM	to the		ial anal nces."; i. U.S.!	Skaleka U.,	D.M., S Kettema Kettema	in T.B., o N.A.,	rg B., I	bMed=124	Chordat Primate	el. 19, el. 28, MGC872: ms=foap	ARY;		N N N N	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	911 1 2 399 2	592 058 2 350 2
÷ : :	75309 Ya E.	Y., Am BL/GenB	EMBL/GenBank/DDBJ da		analysis of more than 15,00 "; .S.A. 99:16899-16903(2002).	TOUCHMAN J.W., Green E.U., DICKBON M., Grimwood J., Schmutz J., Myers R.M., Skaliska U., Smailus D.E., Schnerch A a M.A.;	arcia E.J., dan A. evchen	donaldo M.K., Casava , Toshiyuki S., Carn Peters G.J., Abramso Kernan K.J., Malek J	Buetow K.H., Schaefe ore T., Max S.I., Was Farmer A.A., Rubin	477932; DOI=10.1073/; .A., Grouse L.H., De: Warmer I. Shenmen	a; Craniata; Vertebrata; в; Catarrhini; Hominidae	ast sequence updat ast annotation upd (FOAP-7) (AAAC1967; ORPNames=UNQ1967	PRI	ALIGNMENTS	Q90X89 Q91K74 Q61P29 Q6WNS8	Q86AP6 Q13344	UBASBO ILF3 MOUSE Q812A1 Q7ZX33	Q98SL6 Q7PUR9 Q8C2H8
ldens S., Dowd	3003; D., Bru	Ukai Y., Naito K., . atabases.	databases.		5,000 full-length human 02).	erch A., Schein J.B.,	Gay L.J., Hulyk S.W., ., Gibbs R.A., rigues S., Sanchez A., Bouffard G.G.,	inci P., Scheetz T.E., inci P., Prange C., on R.D., Mullahy S.J., .A., Gunaratne P.H.,		pnas.242603899; rge J.G.,	ata; Euteleostomi; idae; Homo.	e) late))		,	Q90x89 xenopus tro Q91k74 arabidopsis Q6ip29 xenopus lae Q6wns8 fugu rubrip	Q86ap6 dictyosteli Q13344 homo sapien	Qexaee mus musculu Q9z1x4 mus musculu Q812a1 mus musculu Q7zx33 xenopus lae	Q98816 xenopus lae Q7pur9 anopheles g Q8c2h8 mus musculu

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Huang A., Kim H.S., Klimowski L., Jin Y., Johnson S., Lee

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Best Local Similarity
Matches 339; Conserv
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Q9Y683;
01-NOV-1999 (TrEMBLrel. 1
01-NOV-1999 (TrEMBLrel. 1
05-JUL-2004 (TrEMBLrel. 2
HSPC035 protein (XTP3).
Name=XTP3;
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Yi S., Y
                                                                                            MEDLINE=20499367; PubMed=11042152; DOI=10.1101/gr.140200; Zhang Q.H., Ye M., Wu X.Y., Ren S.X., Zhao M., Zhao C.J., Fu G., Shen Y., Fan H.Y., Lu G., Zhong M., Xu X.R., Han Z.G., Zhang J.W., Tao J., Huang Q.H., Zhou J., Hu G.X., Gu J., Chen S.J., Chen Z.; "Cloning and functional analysis of cDNAs with open reading frames "Cloning and functional analysis of cDNAs with open reading frames on previously undefined genes expressed in CD34+ hematopoietic stem/progenitor cells."; "Genome Res. 10:1546-1560(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "The secreted protein discovery initiative (SPDI), a large-scale effort to identify novel human secreted and transmembrane protein bioinformatics assessment."; Genome Res. 13:2265-2270(2003).

EMBL; BC015012; AAH15012.1; --
EMBL; BMD28926; BAB82465.1; --
EMBL; AM399104; AAQ89465.1; --
InterPro; IPR009567; DUF1183.

Pfam; PF06682; DUF1183; 1.
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Seshagiri
SEQUENCE FROM N.A.
Liu Y., Cheng J., Lu
Submitted (MAR-2002)
                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens (Human)
Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                          NCBI_TaxID=9606;
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Hypothetical
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S., Simmons L., Singh J., Smith V., Stinson J., Vagts A.,
L., Watanabe C., Wieand D., Woods K., Xie M.H., Yansura D.,
G., Yuan J., Zhang M., Zhang Z., Goddard A., Wood W.I.,
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0; Mismatches
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EMBL; AF078855; AAD44487.1; .
InterPro; IPR009567; DUP1183.
Pfam; PF06682; DUF1183; 1.
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Eukaryota; Metazoa;
Mammalia; Eutheria;
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EMBL; AF490252; AAO85460.1;
InterPro; IPR009567; DUP118;
Pfam; PF06682; DUP1183; 1.
SEQUENCE 339 AA; 36979 M
                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A. TISSUE=Normal pituitary;
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                                                                                                                                                                                                                                                                                                                                         TISSUE=Normal pituitary;
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CKTDLDIAYKFGKTVVSCEGYESSEDQYVLRGSCGLEYNLDYTELGLQXLKESGKQHGFA
                                                             MLLRDVKALTLHYDRYTTSRKLDPIPQLKCVGGTAGCDSYTPKVIQCQNKGWDGYDVQWE
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Last annotation updat
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RP SEQUENCE FROM N.A.

RP SEQUENCE FROM N.A.

RC STRAIN-CZECH II; TISSUE-Mammary tumor;

RC STRAIN-CZECH II; TISSUE-Mammary tumor;

RX MEDLINE-22388257; PubMed=12477932; DOI-10.1073/pnas.242603899;

RA MEDLINE-22388257; PubMed=12477932; DOI-10.1073/pnas.242603899;

RA MEDLINE-22388257; PubMed=12477932; DOI-10.1073/pnas.242603899;

RA MEDLINE-22388257; PubMed=12477932; DOI-10.1073/pnas.242603899;

RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,

RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,

RA Diatchenko L., Warusina K., Farmer A.A., Rubin G.M., Hong L.,

RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carminol P., Prange C.,

RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carminol P., Prange C.,

RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carminol P., Prange C.,

RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hullahy S.J.,

RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hullyk S.W.,

RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,

RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,

RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,

RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,

RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,

RA Raman M., Skalska U., Smailus D.E., Schnerch A., Schein J.E.,

**Tannan***
         RESULT
ORDER
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01-JUN-2002 (TrEMBLrel. 2
01-JUN-2002 (TrEMBLrel. 2
25-OCT-2004 (TrEMBLrel. 2
1810045K07R1k protein (Mu
TRACH2016709)
Suzuki O., Basaki N., Aotsuka S., Shoji T., Ichihara T., Shiohi Matsumoro K., Hirano M., Sano S., Nomura R., Yoshikawa Y., Matsumoro X., Moriya S., Chiba E., Momiyama H., Onogawa S., Matsumawa Y., Moriyama S., Satoh N., Matsunawa H., Takahashi B., Kataoka R., Kuga N., Kuroda A., Satoh I., Kamata K., Takami S., Terashima Nauga N., Kuroda A., Satoh I., Irie R., Otsuki T., Sato H., Ota T., Watamateu A., Ishi S., Yamamoto J., Isono Y., Kawai-Hio Y., Sakamateu A., Ishi S., Yamamoto J., Isono Y., Kawai-Hio Y., Sakini K., Kimura K., Yamashita H., Matsuo K., Nakamura Y., Sekine M., Kikuchi H., Kanda K., Wagatsuma M., Murakawa K.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Name=1810045K07Rik;
Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Jones S.J., Marra M.A., "Generation and initial analysis and mouse cDNA sequences.";
                                                                                                                                                                                                                                                                             SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                               STRAIN-CZECH
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SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
STRAIN=C57BL/6J; TISSUE=Placenta;
STRAINE=99279253; PubMed=10349636; DC
ACTAINCE P., Hayashizaki Y.;
Carninci P., Hayashizaki Y.;
T"High-efficiency full-length cDNA cl
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Matches 26
  SEQUENCE FROM N.A.
STRAIN=C57BL/6J; TISSU
The FANTOM Consortium,
the RIKEN Genome Explo
                                                                                                                                                      SEQUENCE FROM N.A.
STRAIN=C57BL/6J; TISSUE-Placenta;
MEDLINE=21085660; PubMed=11217851;
RIKEN FANTOM Consortium;
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Mammalia; Eutheria;
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EMBL; BC024888; AAR24888.1; --
EMBL; AK093942; BAC04255.1; --
MGD; MGI:1915137; 1810045K07Rik.
GO; GO:0016021; C:integral to membrane; TAS.
InterPro; IRR009567; DUF1183; 1.
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01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
Mus musculus adult female placenta cDNA, RIKEN full-length enriched
library, clone:1600029G18 product:similar to FOAP-7.
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                                                                                                             "Functional annotation of Nature 409:685-690(2001).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Name=1810045K07Rik;
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AA; 38691
                                             TISSUE=Placenta;
  Exploration Research
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Rodentia;
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79.3%;
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Pred. No. 1
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Query Match
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Arakawa T., Bono H., Carninci P., Fukuda S., Fukunishi Y., Furuno M.,
Hanagaki T., Hara A., Hayatsu N., Hiramoto K., Hiraoka T., Hori F.,
Imotani K., Ishii Y., Itoh M., Izawa M., Kasukawa T., Kato H.,
Kawai J., Kojima Y., Konno H., Kouda M., Koya S., Kurihara C.,
Matsuyama T., Miyazaki A., Nishi K., Nomura K., Numazaki R., Ohno M.,
Okazaki Y., Okido T., Owa C., Saito H., Saito R., Sakai C., Sakai K.,
Sano H., Sasaki D., Shibata K., Shibata Y., Shinagawa A., Shiraki T.,
Sogabe Y., Suzuki H., Tagami M., Tagawa A., Takahashi F., Tanaka T.,
Tejima Y., Toya T., Yamamura T., Yamanaka I., Yasunishi A.,
Yoshino M., Muramateu M., Hayashizaki Y.,
Submitted (Apr-2002) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDIINE=20530913; PubMed=11076861; DOI=10.1101/gr.152600; Shibata K., Itoh M., Aizawa K., Nagaoka S., Sasaki N., Carninci P., Shibata K., Itoh M., Aizawa K., Nagaoka S., Sasaki N., Carninci P., Konno H., Akiyama J., Nishi K., Kitsunai T., Tashiro H., Itoh M., Sumi N., Ishii Y., Nakamura S., Hazama M., Nishine T., Harada A., Yamamoto R., Matsunoto H., Sakaguchi S., Ikegami T., Kashiwagi K., Pujiwake S., Inoue K., Togawa Y., Izawa M., Ohara E., Watahiki M., Yoneda Y., Ishikawa T., Ozawa K., Tanaka T., Matsuura S., Kawai J., Okazaki Y., Muramatsu M., Inoue Y., Kira A., Hayashizaki Y., "RIKEN integrated sequence analysis (RISA) system-38-format sequencing pipeline with 384 multicapillary sequencer."; Genome Res. 10:1757-1771(2000).
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MGI:1915137; 1810045K07Rik.
MGO; MGI:01021; C:integral to membrane;
InterPro; IPR009567; DUF1183.
Pfam; PF06682; DUF1183; 1.
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full-length cDNAs.";
420:563-573 (2002).
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                                                                                                TSGFGSAFTGQQGYENSGFGFWTGLGTGGILGYLFGSNRAATFFSDSWYYFSYPPSYPGT
                                                                                                                                                                        FVLAFAVYKLFLSDGQGSPPPYSEHPPYSEHSQRFASAAGAPPPGFKSEFTGPQNTGYGA
                                                                                                                                                                                                                                                                                                                        QYVLRGSCGLEYNLDYTELGLQKLKESGKQHGFASFSDYYYKWSSADSCNMSGLITIVVL
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WN-RAYSPLHGGSGSYSVCSNSDTKTRTASGYGGTRRR 339
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79.3%;
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Pred. No. 2.1e-100;
5; Mismatches 37;
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01-JUN-2001 (TremBLrel. 17, La
05-JUL-2004 (TremBLrel. 27, La
Mus musculus 10 day old male pu
library, clone:1810045Kn7
STRAIN=CSTRL/GJ; TISSUB=Pancreas;
STRAIN=CSTRL/GJ; TISSUB=Pancreas;
Adachi J., Alzawa K., Akahira S., Akimura T., Arai A., Aono H.,
Arakawa T., Bono H., Carninci P., Fukuda S., Fukunishi Y., Furuno M.
Arakawa T., Bona A., Hayatsu N., Hiramoto K., Hiraoka T., Hori F.,
Imotani K., Ishii Y., Itoh M., Izawa M., Kasukawa T., Kato H.,
Iswai J., Kojima Y., Konno H., Kouda M., Koya S., Kurihara C.,
Kawai J., Kojima Y., Konno H., Kouda M., Koya S., Kurihara C.,
Matsuyama T., Miyazaki A., Nishi K., Nomura K., Numazaki R., Ohno M
                                                                                                                                                                                                                                                                                                        STRAIN=C57BL/6J; TISSUE=Pancreas;

MEDLINE=20530913; PubMed=11076861; DOI=10.1101/gr.152600;

Shibata K., Itoh M., Aizawa K., Nagaoka S., Sasaki N., Carninci P.,

Shibata K., Itoh M., Aizawa K., Nagaoka S., Sasaki N., Carninci P.,

Konno H., Akiyama J., Nishi K., Kiteunai T., Tashiro H., Itoh M.,

Sumi N., Ishii Y., Nakamura S., Hazama M., Nishine T., Harada A.,

Yamamoto R., Matsumoto H., Sakaguchi S., Ikegami T., Kashiwagi K.,

Fujiwake S., Inoue K., Togawa Y., Izawa M., Ohara E., Watahiki M.,

Yoneda Y., Ishikawa T., Ozawa K., Tanaka T., Matsuura S., Kawai J.,

Okazaki Y., Muramatsu M., Inoue Y., Kira A., Hayashizaki Y.;

"RIKEN integrated sequence analysis (RISA) system-384-format

sequencing pipeline with 384 multicapillary sequencer.";

Genome Res. 10:1757-1771(2000).
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STRAIN-C57BL/60; TISSUE=Pancreas;

MEDLINE=20499374; PubMed=11042159; DOI=10.1101/gr.145100;

MEDLINE=20499374; PubMed=11042159; DOI=10.1101/gr.145100;

Carninci P., Shibata Y., Hayatsu N., Sugahara Y., Shibata K.,

Konno H., Okazaki Y., Muramatsu M., Hayashizaki Y.;

"Normalization and subtraction of cap-trapper-selected cDNAs

prepare full-length CDNA (1)
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Nature 420:563-573(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRAIN=C57BL/6J; TISSUE=Pancreas; The FANTOM Consortium,
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STRAIN=C57BL/60; TISSUE=Pancreas;
MEDLINE-21085660; PubMed=11217851; DOI=10.1038/35055500;
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MEDLINE=99279253; PubMed=10349636; DOI=10.1016/S0076-6879(99)03004-9;
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
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Nature 409:685-690(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RIKEN FANTOM Consortium;
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    Last annotation update)
    pancreas cDNA, RIKEN full-length enriched
product:similar to FOAP-7 (1810045K07Rik

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RA Strausberg R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D., RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D., RA Altechul S.F., Zeeberg B., Buettow K.H., Schaefer C.F., Bhat N.K., RA Altechul S.F., Zeeberg B., Buettow K.H., Schaefer C.F., Bhat N.K., RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F., RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F., RA Listenko L., Marusins K., Farmer A.A., Rubin G.M., Hong L., Scheetz T.E., Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E., Stapleton M.J., Uddin T.B., Toshiyuki S., Carninci P., Prange C., Ra Roha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J., RA Roha S.S., Loquellano N.A., Peters G.J., Malek J.A., Gunararne P.H., RA Roha S.S., Morley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W., Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A., RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A., RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G., RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G., RA Whiting M., Touchman J.W., Green E.D., Dickson M.C., RA ROdriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S., RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Schein J.E., RA Rodriguez A.C., Skalska U., Smailus D.E., Schnerch A., Schein J.E., Ra Rodriguez G. T. Marra M.A.
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Strausberg R.;
Submitted (SEP-2001) to the EMBL/GenBank/DDI
EMBL; AK007787; EAB25254.1; -
EMBL; BC013497; AAH13497.1; -
EMBL, BC013497; AAH13497.1; -
MGD; MGI:19:15137; 1810045K07Rik.
GO; GO:0016021; Cintegral to membrane; TAS.
InterPro; IPR009567; DUP1183.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Jones S.J., Marra M.A.; "Generation and initial analysis of more than 15,000 and mouse cDNA sequences.";
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STRAIN=FVB/N; TISSUE=Kidney;
MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
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STRAIN=FVB/N; TISSUE=Kidney;
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AA; 38705 MW; 463BCB5BE1080CF5 CRC64;
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Pred. No. 2.3e-100;
S; Mismatches 37;
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RC STRAIN=FYP/N; TISSUE-Salivary gland;

RX MEDLINE-22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;

RX MEDLINE-22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;

RX MEDLINE-2388257; PubMed=12.0.

RA Alleschul S.F. Zeeberg B.S. Wagner L.H., Schaefer C.F., Bhat N.K.,

RA Alleschul S.F., Jordan H., Moore T., Max S.I., Wang J., Hong L.,

RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hong L.,

RA Hopkins R.F., Jordan H., Bonaldo M.F., Casavant T.L., Scheetz T.B.,

RA Bownstein M.J., Ugdin T.B., Toshiyuki S., Carninci P., Prange C.,

RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,

RA Raha S.S., Morley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

RA Villalon D.K., Muzny D.M., Sodergren B.J., Lu X., Gibbs R.A.,

RA Pahey J., Helton B., Ketteman M., Madan A., Rodrigues S., Sanchez A.,

RA Mhiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,

RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,

RA Krzywinski M.I., Skalska U., Smailus D.B., Schnerch A., Schein J.B.,

RA Jones S.J., Marra M.A.;
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Best Local S
Matches 267
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Q8R233;
01-JUN-2002
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE
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STRAIN=FVB/N; TISSUE=Salivary gland;
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Name=1810045K07Rik;
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"Generation and initial analysis of
"Generation CDNA sequences.";
and mouse CDNA sequences.";
Proc. Natl. Acad. Sci. U.S.A. 99:168
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Mammalia; Eutheria;
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267; Conserv
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WN-RAYSPLHGGSGSYSVCSNSDTKTRTASGYGGTRRR
                                     SSGFGSAF-GGQGYGSSGPGFWSGLGAGGLLGYLFGSNRAATPFSDSWYHPAYPPSHSGA
                                                      TSGFGSAFTGQQGYENSGPGFWTGLGTGGILGYLFGSNRAATPESDSWYYPSYPPSYPGT
                                                                                                             FVLAFAVYKLFLSDGQGSPPPYSEHPPYSEHSQRFASAAGAPPPGFKSEFTGPQNTGYGA
                                                                                                                               LGIAFYVYKLFLSDGQYSPPPYSBYPPFSHRYQRFTNSAGPPPPGFKSBFTGPQNTGHGA
                                                                                                                                                                                 QYVLRGSCGLEYNLDYTELGLQKLKESGKQG---FSDYYHKLYSSDSC---GFITIAVL
QYVLRGSCGLEYNLDYTELGLKKLKESGKQG---FSDYYHKLYSSDSC---GFITIAVL
                                                                                                                                                                                                                                                                                   QLKCVGGTAGCDSYTPKVIQCQNKGWDGYDVQWECKTDLDIAYKFGKTVVSCEGYESSED
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AA; 38747 MW;
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; Rodentia;
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79.0%;
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Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                Score 1418; DB 2;
Pred. No. 1.1e-99;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A99A614440A916E4 CRC64;
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RX Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altechul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Rownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Roha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA Richards S., McCEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Willalon D.K., Muzny D.M., Sodergren B.J., Lu X., Gibbs R.A.,
RA Villalon D.K., Muzny D.M., Sodergren B.J., Lu X., Gibbs R.A.,
RA Pahey J., Helton B., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,
RA Kzzywinski M.I., Skalska U., Smailus D.B., Schnerch A., Schein J.E.,
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Best Local Similarity
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25-OCT-2004
25-OCT-2004
                                                                                                                                                                                                                                                                                                                                                                                                         Submitted (AUG-2004) to the EMBL/GenBank/DDBJ EMBL; BC078979; AAH78979.1; -. InterPro; IPR009567; DUP1183. PF6am; PF06682; DUP1183; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Jones S.J., Marra M.A.;
"Generation and initial analysis of more than 15,000
and mouse cDNA sequences.";
Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
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Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE
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                                                                                                                   QYVLRGSCGLEYNLDYTELGLQKLKESGKQHGFASFSDYYYKWSSADSCNWSGLITIVVL
                                                                                                                                                                                     QLKCVGGTAGCDSYTPKVIQCQNKGWDGYDVQWBCKTDLDIAYKFGKTVVSCEGYBSSBD
TSGFGSAFTGQQGYENSGPGFWTGLGTGGILGYLFGSNRAATPFSDSWYYPSYPPSYPGT
                              FVLAFVVYKLFLSDGQGSPPPYSEHPPYSQHSQRFAGTAGAPPPGFKSDFTGPQSTSYGA
                                                                                                  QYILRGSCGLEYNLDYTELGLSKLKESGKHQ---SFSDYYHKLSSVDSC---GLVTVAVL
                                                                                                                                                                                                                                       AAVGRPRAVRCLLLLLLSFLLVAGPALCWKNPDRILLRDVEALTLYSDRYTTSRRLDPIP
                                                                                                                                                                     QLKCVGGTAGCDAYTPKVVQCQNKGWDGYDVQWECKTDLDIAYKFGKTVVSCEGYDSSED
                                                                                                                                                                                                                                                                                                                                                                           334 AA;
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(TrEMBLrel. 28, Last sequence update)
(TREMBLrel. 28, Last annotation update)
protein MGC93866.
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; Rodentia;
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Pred. No. 2.3e
28; Mismatches
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Sciurognathi; Muridae; Murinae; Rattus.
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Q8C2F1;
01-MAR-2003
                                                                                                                                         STRAIN=NOD; TISSUE=Thymus;

MEDLINE=20530913; PubMed=11076861; DOI=10.1101/gr.152600;

Shibata K., Itoh M., Aizawa K., Nagaoka S., Sasaki N., Carninci P.,

Shibata K., Itoh M., Aizawa K., Nagaoka S., Sasaki N., Carninci P.,

Konno H., Akiyama J., Nishi K., Kitsunai T., Tashiro H., Itoh M.,

Yamamoto R., Matsumoto H., Sakaguchi S., Ikegami T., Kashiwagi K.,

Fujiwake S., Inoue K., Togawa Y., Izawa M., Ohara E., Watahiki M.,

Yoneda Y., Ishikawa T., Ozawa K., Tanaka T., Matsuura S., Kawai J.,

Yokazaki Y., Muramatsu M., Inoue Y., Kira A., Hayashizaki Y.;

"RIKEN integrated sequence analysis (RISA) system-384-format

sequencing pipeline with 384 multicapillary sequencer.";

Genome Res. 10:1757-1771(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STRAIN=NOD: TISSUB=Thymus;
MEDLINB=2049374; PubMed=11042159; DOI=10.1101/gr.145100;
MEDLINB=2049374; PubMed=11042159; DOI=10.1101/gr.145100;
Carninci P., Shibata Y., Hayatsu N., Sugahara Y., Shibata K.,
Konno H., Okazaki Y., Muramatsu M., Hayashizaki Y.;
"Normalization and subtraction of cap-trapper-selected cDNAs prepare full-length cDNA libraries for rapid discovery of new Genome Res. 10:1617-1630(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   the RIKEN Genome Exploration Research Group Phase I & II "Analysis of the mouse transcriptome based on functional 60,770 full-length cDNAs."; Nature 420:563-573(2002).
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STRAIN=NOD; TISSUE=Thymus;
MEDLINE=21085660; PubMed=11217851; DOI=10.1038/35055500;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Carninci P., Hayashizaki Y.; "High-efficiency full-length c Meth. Enzymol. 303:19-44(1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata;
Bukaryota; Butheria; Rodentia;
Mammalia; Eutheria; Rodentia;
MCBI_TaxID=10090;
                                   STRAIN=NOD;
Adachi J., /
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STRAIN=NOD; TISSUE=Thymus;
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Furuno M.,
TISSUB=Thymu8;
Aizawa K., Akimura T., l
Furuno M., Hanagaki T.,
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(TrEMBLrel. 23, I
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(TrEMBLrel. 26, I
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23, Last sequence update)
26, Last annotation update)
ate thymus thymic cells cDNA, RIKEN full-
clone:E430024I20 product:similar to FOAP
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        Arakawa T., Bono H.,
, Hara A., Hashizume
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HA Hori F., Imotani K., Ishii Y., Itoh M., Kagawa I., Kaudawa T.,
Katoh H., Kawai J., Kojima Y., Kondo S., Konno H., Kouda M., Koya S.,
KAtoh H., Kawai J., Kojima Y., Kondo S., Konno H.,
Kouda M., Koya S.,
Wa Kurihara C., Matsuyama T., Miyazaki A., Murata M., Nakamura M.,
Nishi K., Nomura K., Numazaki R., Ohno M., Ohsato N., Okazaki Y.,
Wa Saito R., Saitoh H., Sakai C., Sakai K., Sakazume N., Sano H.,
Wa Sasaki D., Shibata K., Shinagawa A., Shiraki T., Sogabe Y., Tagami M.,
Tagawa A., Takahashi F., Takaku-Akahira S., Takeda Y., Tanaka T.,
Wa Tomaru A., Toya T., Yasunishi A., Muramatsu M., Hayashizaki Y.;
Wa Submitted (Apr.2002) to the EMBL/GenBank/DDBJ databases.

BMGD, MGI:1915137, 1810045KO7Rik.

MGD, MGI:1915137, 1810045KO7Rik.

R SMGD, IPR009567, DUF1183.
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Best Local 9
                                                                                                                                                                                                                  Science [2]
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01-NOV-1996 (TrEMBLrel. 01, Created)
01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation updat
Hypothetical protein T06D8.9.
ORFNames=T06D8.9;
Caenorhabditis elegans.
                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
STRAIN=Bristol N2;
MEDLINE=99069613; PubMed=9851916;
                                               Palmer S.;
Submitted (APR-1995) to the
EMBL; Z49130; CAA88972.1;
PIR; T24582; T24582.
                                                                                                                                                           SEQUENCE FROM N.A.
STRAIN-Bristol N2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa; Nematoda; Chromadorea; Rhabditida; Rhabditoidea; Rhabditidae; Peloderinae; Caenorhabditis.
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                                                                                                                                                                                                                                      "Genome sequence of the nematode C.elegans: investigating biology."; Science 282:2012-2018(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=6239;
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Pred. No. 2e-8
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                                                                                                                                                                                                                                    RA Galagan J.B., Calvo S.E., Borkovich K.A., Selker B.U., Read N.D., A Jaffe D., Pitzhugh W., Ma L.-J., Smirnov S., Purcell J.S., Rehman B., Al Rikins T., Engels R., Rang S., Nielsen C.B., Butler J., Endrizzi M., An Qui D., Ianakiev P., Pedersen D., Nelson M., Washburne M., Al Qui D., Ianakiev P., Pedersen D., Nelson M., Washburne M., Selitrennikoff C.P., Kinsey J.A., Braum B.L., Zelter A., Schulte U., As Selitrennikoff G.P., Kinsey J.A., Braum B.L., Zelter A., Schulte U., As Kothe G.O., Jedd G., Mewes W., Staben C., Marcotte R., Greenberg D., As Kothe G.O., Staben C., Marcotte R., Greenberg D., As Kothe G.O., Staben C., Marcotte R., Greenberg D., As Kamal M., Kamvysselis M., Mauceli B., Bielke C., Rudd S., Frishman D., Kamus M., Kamusen C., Matcheside D., Li W., Pratt R.J., Osmani S.A., As Krystofova S., Rasmussen C., Matcheside D., Li W., Pratt R.J., Osmani S.A., As Kamal C.C., Glass L., Orbach M.J., Berglund J., Voelker R., As Actorino G., Catcheside D., Li W., Pratt R.J., Osmani S.A., As Paulsen C., Plamann M., Seiler S., Dunlap J., Radford A., Aramayo R., As Aramayo D.O., Alex L.A., Mannhaupt G., Ebbole D.J., Freitag M., Paulsen I., Sachs M.S., Lander B.S., Nusbaum C., Birren B., Patter G.D., Catcheside D.J., Freitag M., Paulsen D., Sachs M.S., Lander B.S., Nusbaum C., Birren B., Patter G.D., Catcheside D.J., Freitag M., Patter B., Patter
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Q7S303;
01-MAR-2004
01-MAR-2004
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Eukaryota; Pungi; Ascomycota; Pezizomycotina; Sordariomycetes;
Sordariomycetidae; Sordariales; Sordariaceae; Neurospora.
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                                                                                         preliminary data.
EMBL; AABX01000415; E
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STRAIN=OR74A;
                                                                                                                                                 Nature 0:0-0(2003).
-i- CAUTION: The sequence sh
EMBL/GenBank/DDBJ whole
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                             Pro; IPR009567; DUI
PF06682; DUF1183;
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Pred. No. 6.6e-30;
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RESULT 12
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                                                                                                                                                                                                                                                                                                             A Galagan J.B., Calvo S.B., Borkovich K.A., Selker B.U., Read N.D.,
A Jaffe D., Pitchugh W., Ma L.-J., Smirnov S., Purcell S., Rehman B.,
RA Elkins T., Engels R., Wang S., Nielsen C.B., Butler J., Endrizzi M.,
RA Qui D., Ianakiev P., Pedersen D., Nelson M., Washburne M.,
RA Colltrennikoff C.P., Kinsey J.A., Braun E.L., Zelter A., Schulte U.,
RA Kothe G.O., Jedd G., Mewes W., Staben C., Marcotte E., Greenberg D.,
RA Kothe G.O., Jedd G., Mewes W., Staben C., Barrett R., Gnerre S.,
RA Roy A., Foley K., Naylor J., Thomann N., Barrett R., Gnerre S.,
RA Roy A., Foley K., Maylor J., Thomann N., Barrett R., Greenberg D.,
RA Kamal M., Kamryssells M., Mauceli E., Bielke C., Rudd S., Frishman D.,
Krystofova S., Rasmussen C., Metzenberg R.L., Perkins D.D., Kroken S.,
RA Cogoni C., Macino G., Catcheside D., Li W., Pratt R.J., Osmani S.A.,
RA Cogoni C., Glass L., Orbach M.J., Berglund J., Voelker R.,
RA Yarden O., Plamann M., Seiler S., Nubabum C., Birren B.,
RA Natvig D.O., Alex L.A., Mannhaupt G., Ebbole D.J., Freitag M.,
RA Paulsen I., Sachs M.S., Lander E.S., Nubabum C., Birren B.,
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  Query Match
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Best Local Similarity
                                                     Hypothetical SEQUENCE 9
                                                                                                       Pfam;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Neurospora crassa.
Eukaryota; Fungi; Ascomycota;
Sordariomycetidae; Sordariale;
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                                                                                                                                                                                                                                       Nature 0:0-0(2003).
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                                                                                                                                                               preliminary data.
; AABX01000786; EAA26644.1;
                                                                                                                                                                                                                 EMBL/GenBank/DDBJ whole
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                                                                                                          Pro; IPR010816; Het-C
PF07217; Het-C; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ascomycota; Pezizomycotina; Sordariomycetes; Sordariales; Sordariaceae; Neurospora.
                                                     102083 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    19.2%;
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  6.6%;
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26,
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                                                                                                                                                                                                                                                                                            Filamentous Fungus Neurospora crassa.";
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Last annotation update)
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Pred. No. 2.3e-19;
  Score
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                                                     9656BD5377A9640B CRC64;
  124;
                                                                                                                                                                                                              shotgun
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hotgun (WGS)
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Length 961;
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RESULT 13
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Matches
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                                                                                                                                                                                            Signal.
NON TER
SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q01385;
Q01385;
01-NOV-1996
                                                                                                                                                                                                                                                                  STRAIN=74-OR23-1VA;
Saupe S.J., Kuldau G.A., Smith M.S., Glass L.N
Submitted (APR-1996) to the EMBL/GenBank/DDBJ
EMBL; L77234; AAB48349.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Bukaryota; Fungi; Ascomycota; Pezizomycotina;
Sordariomycetidae; Sordariales; Sordariaceae;
NCBI_TaxID=5141;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Glycine rich protein precursor (Fragment).
Name=het-COR;
                                                                                                                                                                                SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                  Saupe S.J., Kuldau G.A., Smith M.L., GI "The product of the het-C heterokaryon Neurospora crassa has characteristics oportein."
                                                                                                                                                                                                                                                                                                                                                                                                                             STRAIN=74-OR23-1VA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-NOV-1996
01-MAR-2004
                                                                                                                                                                                                                              InterPro; IPR008927; 6DGDH C like.
InterPro; IPR010816; Het-C.
Pfam; PF07217; Het-C; 1.
                                                                                                                                                                                                                                                                                                                                                              protein.
                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE=97001118; PubMed=8844148;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Neurospora crassa.
                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
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                                                                                                                             65;
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                                                                                                                                          Similarity
 VVLLGIAFVVYKLFLSDGQYSPPPYSEY---PPFSHRYQRFTNSAGPPPPGFKSEFTGPQ
                         GSLWSKIQSRDLDTSAPSGGVGGGRPSSSTGHKYGYSASSSHHEVPTHGEAASY-----
                                                -----YNLDYTEL-----GLQKLKESGKQHGFASFSDYYYKWSSADSCNMSGLITI
                                                                                                    VQWECKTDLDIAYKFGKTVVSCEGYESSEDQYVLRG------SCGLE-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NTGHGATSGFGSAFTGQQGY-ENSGPGFWTGLGTGGILGYLFGSNRAATPFSDSWY----
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VOWSRETHIDY-----KTILLASESVKEGHN-HVLNGQPMDRGPGGGHTSCGADGGHGKVA
                                                                             VQWSRETHHDY-----KTLLASESVKEGHN-HVLNGQPMDRGPGGGHTSCGADGGHGKVA
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966 AA;
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                                                                                                                             Conservative
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102790 MW;
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Last annotation update)
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                                                                                                                                      Score 124; DB 2
Pred. No. 0.76;
                                                                                                                                                                                            Potential.
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                                                                                                                            Mismatches
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on incompatibility gene
s of a glycine-rich cell
                                                                                                                                                                                                                                                                                                Glass L.N.
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Neurospora.
                                                                                                                                                                                                                                                                                     databases.
                                                                                                                                                      Length 966;
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RESULT 15
Q9UVL3
ID Q9UVL
AC Q9UVL
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
CONTROL Heter
GN Name=
OS Neuro
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Best Local S
Matches 65
                                Q9UVL3
Q9UVL3;
01-MAY-2000
01-MAY-2000
01-MAR-2004
                  01-MAY-2000 (TrEMBLrel. 13, 01-MAY-2000 (TrEMBLrel. 13, 01-MAR-2004 (TrEMBLrel. 26, 1) Heterokaryon incompatibility
                                                                                                                                                                                                                                                                                                                                                                                                                                      German Neurospora genome projes
submitted (JAN-2002) to the EM
EMBL; AL669988; CAD21080.1; -.
Ffam; PF07217; Het-C; 1.
SEQUENCE 977 AA; 104015 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Neurospora crassa.
Eukaryota; Pungi; Ascomycota; Pezizomycotina;
Sordariomycetidae; Sordariales; Sordariaceae;
NCBI_TaxID=5141;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
Schulte U., Aign V., Hoheisel J., Brandt P., F
Schulte U., Aign V., Hoheisel J., Brandt P., F
Nyakatura G., Mewes H.W., Mannhaupt G.;
Submitted (JAN-2002) to the EMBL/GenBank/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-MAR-2002 (TrEMBLrel 20, Cree
01-MAR-2002 (TrEMBLrel 20, Last
01-MAR-2004 (TrEMBLrel 26, Last
Glycine rich protein (Het-COR).
             Name=het-c;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                           65;
                                                                                                                                                                                                                                                                                                                                                                                         Similarity 22.4
65; Conservative
                                                                                                                                                                                                                                                                                                                                       VQWSRETHHDY-----KTLLASESVKEGHN-HVLNGQPMDRGPGGGHTSCGADGGHGKVA
                                                                                                                                              SYSSQPSYGAPPSQPPYGSQ---PHYGGPPHSSYSGGRPPSPPRPSGYGG
                                                                                                                                                                                         HGGHQAYEGSSSYPSQPSYGGSSGPSY-----
                                                                                                                                                                                                                   NTGHGATSGFGSAFTGQQGY-ENSGPGFWTGLGTGGILGYLFGSNRAATPFSDSWY----
                                                                                                                                                                                                                                                                                         ----YPSY--PPSYPGTWNRAYSPLHGGSGSYSVCSNSDTKTRTASGYGG
                                                                                                                                                                                                                                                                                                                                                                VQWECKTOLDIAYKFGKTVVSCEGYESSEDQYVLRG-------
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                                                                                                                                                                                                                                           -----FSSADPRHASPPTDRYYGSRPSSSGYGSSVHGSGRPSPAPAS--FGYH
                                                                                                                                                                                                                                                                 VVLLGIAFVVYKLFLSDGQYSPPPYSBY---PPFSHRYQRFTNSAGPPPPGFKSBFTGPQ
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 crassa
                                                                                   PRELIMINARY;
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to the EMBL/GenBank/DDBJ
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                    Last sequence update)
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y protein HET-C.
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Pred. No. 0.77;
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Neurospora.
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Best Local S
Matches 84
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Saupe S.J., Glass N.L.;
Submitted (OCT-1999) to the EMBL/GenBank/DDBJ
EMBL; AF195874; AAF08294.1; -.
InterPro; IPR008927; 6DGDH C like.
InterPro; IPR008916; Het-C.
Pfam; PF07217; Het-C; 1.
SEQUENCE 974 AA; 103728 MW; 2EB3D11E3D6774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE=97403306; PubMed=9258675; Saupe S.J., Glass N.L.; Saupe S.J., Glass N.L.; "Allelic specificity at the het-c heterokaryon incompatibility of Neurospora crassa is determined by a highly variable domain. Genetics 146:1299-1309(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A. STRAIN=FGSC 2190;
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STRAIN=FGSC 2190;
STRAIN=FGSC 2193; PubMed=9770498; DOI=10.1073/pnas.95.21.
MEDLINE=98445383; PubMed=9770498; DOI=10.1073/pnas.95.21.
MEU.J., Saupe S.J., Glass N.L.;
"Evidence for balancing selection operating at the het-c incompatibility locus in a group of filamentous fungi.";
incompatibility locus in a group of filamentous fungi.";
proc. Natl. Acad. Sci. U.S.A. 95:12398-12403(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
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Sordariomycetidae; Sordariales; Sordariaceae;
NCBI_TaxID=5141;
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PPRPSGYGGGYAGYSAGPPPSHGGYGGY
                                                            SYGGSSGPSYGGYSQPSYGSQPSYSSQPSYGAHPSQPPYGSQPHYGGPSHGSYSGGRPPS
                                                                                         GFW--TGLGTGGILGYLFGSNRAATPFSDSWYYPSYP-----PSYPGTWNRAYS-----
                                                                                                                       RYYGSRPSSSGYGSSVHGSGRPSPAPGS--FGYHHGGHQAYECSSSSYPSQPSYAGSSGP
                                                                                                                                                    EY---PPFSHRYQRFTNSAGPPPPGFKSBFTGPQNTGHGATSGFGSAFTGQQGYB-NSGP
                                                                                                                                                                                                                  KQHGF-----ASFSDYYYKWSSADSCNMSGLITIVVLLGIAFVVYKLFLSDGQYSPPPYS
                                                                                                                                                                                                                                                                                KTVVSCEGYESSEDQYVLRG---
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                           PLHGGSGSYSVCSNSDTKTRTASGYGG 335
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Pred. No. 1.1;
15; Mismatches
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Neurospora.
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Search completed: July 14, 2005, 20:32:13
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Database
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Maximum DB
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1: geneseqp1990s:*
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1243
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score greater than and is derived by a Pred. No. is the number of results predicted by chance to have a ater than or equal to the score of the result being printed, rived by analysis of the total score distribution.

SUMMARIBS

25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	σ	տ	4	ω	N	,	Result No.
318.5		356.5	459	581.5	601.5	603	603	603	653	873	951	951	982	983	1178	1178	1178	1178	1178	1178	1178	1178	1178	1243	Score
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The present sequence is that of a novel human protein having an N-terminal transmembrane domain. It is predicted from cDNA clone HP03303 (see AAF30020), isolated from a human liver cDNA library. The predicted protein shows sequence similarity to human hypothetical protein KIAA1007. The invention provides human proteins (see AAE20089-96) having hydrophobic domains indicative of secretory signals or membrane domains.

New proteins with hydrophobic domains, useful for treating autoimmune diseases, inflammatory diseases, wounds, burns, incisions and ulcers.

Claim 1; Page 85-86; 126pp; English.

N-PSDB; AAB20089.

WPI; 2001-123008/13.

Kato S, (SAGA) (PROT-)

Kimura T;

24-JUN-1999;

99JP-00178065

SAGAMI CHEM RES CENT PROTEGENE INC.

45	44	43	42	41	40	39	96	37	36	35	34	ü	32	31	30	29	28	27	0
. 84	84.5	84.5	85	85.5	85.5	86	86	96	87.5	87.5	88.5	107.5	107.5	231.5	234	237	256	270.5	110
6.8	6.8	6.8	6.8	6.9	6.9	6.9	6.9	6.9	7.0	7.0	7.1	8.6	8.6	18.6	18.8	19.1	20.6	21.8	20.0
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Aay88055	Adn39904	Adm05878	Abg16902	Abp69251	Ad105937	Abu42356	Abm70942	Abm71071	Adj71185	Ade78572	Abu33498	Adk63610	Abr52606	Adn18884	Aag02630	Abg19704	Adn20795	Abg04094	COLCTINA
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ALIGNMENTS

Human; hydrophobic domain; antiinflammatory; immunosuppressive; immunostimulant; vulnerary; antiulcer; haemostatic; cytostatic; hepatotropic; thrombolytic; antitumour; antiviral; antibacterial; antifungal; gene therapy; diagnosis; membrane protein. 04-JAN-2001. Key Modified-site Homo sapiens Human hydrophobic domain-containing protein HP03303. 23-APR-2001 AAB20089 standard; protein; 16-JUN-2000; 2000WO-JP003944 WO200100824-A2 AAB20089; (first entry) Location/Qualifiers /note= "N-glycosylated" 238 AA

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RESULT 2
ADQ96030
ID ADQ9
XX ADQ9
XX ADQ9
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XX Gene
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27-DEC-2002; 2002US-0436473P.

25-APR-2003; 2003JP-00122113.

28-APR-2003; 2003US-0465792P.

21-OCT-2003; 2003JP-00360559.

22-OCT-2003; 2003US-0512846P.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           antimicrobial; antirheumatic; immunosuppressive; neuroprotective; gene therapy; T cell activation; diagnosts; autoimmune disease; rheumatoid arthritis; asthma; multiple sclerosis; diabetes; allergic disease; infectious disease; AIDS; chronic rejection; or
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Pred. No. 1.4e-131;
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                                                                                                           26-DEC-2002;
27-DEC-2002;
25-APR-2003;
28-APR-2003;
21-OCT-2003;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The invention relates to purified proteins and genes encoding them, that are involved in T cell activation (I) and has an amino acid deletion, substitution or addition in the amino acid sequences. The methods and compositions of the present invention are useful for the diagnosis, prevention and/or treatment of autoimmune disease (rheumatoid arthritis, asthma, multiple sclerosis and diabetes), allergic disease, infectious disease, AIDS, and acute or chronic rejection at organ transplant or bon-marrow transplant. This sequence corresponds to a protein involved in T
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               gene therapy; T cell activation; diagnosis; autoimmune disease; rheumatoid arthritis; asthma; multiple sclerosis; diabetes; allergic disease; infectious disease; AIDS; chronic rejection; organ;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      antiallergic; antiarthritic; antimicrobial; antirheumatic;
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2003US-0465792P.
2003JP-00360559.
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                                                                                                                                                                                                              Cytostatic; Anti-inflammatory; Osteopathic; Neuroprotective; Nootropic; Gene Therapy; human; secretory protein; membrane proteins; cancer; inflammatory disease; osteoporosis; neurological disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New purified protein involved in T cell activation, useful for diagnosing, preventing and/or treating acquired immunodeficiency syndrome, autoimmune (e.g. rheumatoid arthritis, and diabetes),
                                              14-SEP-2001; 2001JP-00328381.
24-JAN-2002; 2002US-0350435P.
                                                                                            21-MAR-2002; 2002EP-00006586.
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                                                                                                                                                                                                                                                                                                                                        ADA55285
                                                                                                                                                                                                                                                                                                                                                                     ADA55285 standard;
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 (HELI-) HELIX RES INST.
(REAS-) RES ASSOC BIOTECHNOLOGY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NLQLINALVLYVGTQAIAHIHNKGSTPSMSTITHSAHMDIFQNLAVDLDTEGRYLFLNAI
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Pred. No. 1.4e
1; Mismatches
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1.4e-123;
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RESULT 5
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Best Local Sim
Matches 225;
                                                                                                     Human; open reading frame; ORFX; detection; cytostatic; hepatotropic; vulnerary; antipsoriatic; antiparkinsonian; nootropic; neuroprotective; anticonvulsant; osteopathic; antiartritic; immunosuppressant; cardiant; immunostimulant; thrombolytic; coagulant; vasotropic; antidiabetic; hypotensive; dermatological; immunosuppressive; antidiabetic; hypotensive; dermatological; immunosuppressive; antiinflammatory; antiviral; antibacterial; antifungal; antifenematic; antithyroid; antitanaemic; gene therapy; cancer; proliferative disorder; hypertension; neurodegenerative disorder; osteoarthritis; graft vs host disease; cardiovascular disease; diabetes mellitus; hypothyroidism; SCID; AIDS; cholesterol ester storage; systemic lupus erythematosus; infection; severe combined immunodeficiency; malaria; autoimmune disorder; asthma; allergy; aplastic anaemia; nocturnal haemoglobinuria; burn; wound; bone damage; cartilage damage; antiinflammatory disease; coagulation; thrombosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The present invention relates to novel human secretory or membrane proteins (ADA54072-ADA55710) and their coding sequences (ADA52433-ADA54071). The coding sequences are useful in the gene therapy of diseases caused by abnormalities of the proteins, e.g. cancer, inflammatory diseases, osteoporosis or neurological disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New polynucleotides encoding full-length polypeptides, e.g. secretory and/or membrane proteins, useful for developing medicines for diseases which the gene is involved, or as target molecules for gene therapy.
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Yamamoto
                                                                                                                                                                                                                                                                                                                                          Human
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                                                                                                                                                                                                                                                                                                                                                                                                                                        AAB43253 standard;
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                                                                                                                                                                                                                                                                                                                                        ORFX ORF3017 polypeptide sequence SEQ ID NO:6034.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    KNPAFKFWNHEFVHCAPEIEKLFQSVAQCCMGQKQAQQVMEGTGAS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ANQLRYPNSHTHYFSCTMLYLFAEANTEAIQEQITRVLLERLIVNRPHPWGLLITFIBLI 192
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Hio Y, Otsuka K, Nagai
Otsuka M, Nagahari K, N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               205pp; English.
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Pred. No. 3e-123;
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K, Irie
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RESULT 6
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CC which represent the human ORPX open reading frames 1 to 3161. The ORPX CC sequences have activities such as: cytostatic; hepatotropic; vulnerary; CC antiporiatic; antiparkinsonian; nootropic; neuroprotective; osteopathic; cardiant; thrombolytic; coagulant; vasotropic; antidiabetic; hypotensive; CC cardiant; thrombolytic; coagulant; vasotropic; antidiabetic; hypotensive; CC dermatological; immunosuppressive; antiinflammatory; and antianaemic. The cc antiviral; antifungal; antirheumatic; antityroid; and antianaemic. The cc sequences can be used for determining the presence of or predisposition to, or preventing or treating pathological conditions associated with an CC ORFX-associated disorder. The nucleic acids can be used to express ORFX coused to treat cancers, proliferative disorders, neurodegenerative compared to treat cancers, proliferative disorders, neurodegenerative consideres, osteoarthritis, graft vs host disease, chalesterol ester contrage, systemic lupus erythematosus, severe combined immunodeficiency (SCID), AIDS, viral, bacterial or fungal infection, malaria, autoimmune cc cartilage damage, nocturnal haemoglobinuria, antiinflammatory disease; to enhance coagulation; to inhibit thrombosis; and as a contraceptive
                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local S
Matches 225
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02-APR-1999; 99US-0127636P.

05-APR-1999; 99US-0127728P.

30-MAR-2000; 2000US-00540763.
                    07-OCT-2004
                                                                                  ADQ96036 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Novel nucleic acids and peptides derived from open reading useful for treating e.g. cancers, proliferative disorders, neurodegenerative disorders and cardiovascular disease.
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                                                   ADQ96036;
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                                                                                                                                                                  KNIPAFKFWNHEFVHCAPEIEKLFQSVAQCCMGQKQAQQVMEGTGAS
                                                                                                                                                                                   KNPAFKFWNHEFVHCAPEIEKLFQSVAQCCMGQKQAQQVMEGTGAS
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                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                  (first
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                  entry)
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Pred. No. 3.1e
1; Mismatches
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3.1e-123;
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                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
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27-DEC-2002; 2002US-0436473P.
25-APR-2003; 2003JP-00122113.
28-APR-2003; 2003JP-00465792P.
21-OCT-2003; 2003JP-00360559.
22-OCT-2003; 2003US-0512846P.
                                                                                                                                                                                                                                                                                                                                                                               The invention relates to purified proteins and genes encoding them, tha are involved in T cell activation (1) and has an amino acid deletion, substitution or addition in the amino acid sequences. The methods and compositions of the present invention are useful for the diagnosis, prevention and/or treatment of autoimmune disease (rheumatoid arthritis sthma, multiple sclerosis and diabetes), allergic disease, infectious disease, AIDS, and acute or chronic rejection at organ transplant or bo marrow transplant. This sequence corresponds to a protein involved in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New purified protein involved in T cell activation, useful for diagnosing, preventing and/or treating acquired immunodeficiency syndrome, autoimmune (e.g. rheumatoid arthritis, and diabetes),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          antiallergic; antiarthritic; antiasthmatic; antidiabetic; anti-HIV; antimicrobial; antirheumatic; immunosuppressive; neuroprotective; gene therapy; T cell activation; diagnosis; autoimmune disease; rheumatoid arthritis; asthma; multiple sclerosis; diabetes; allergic disease; infectious disease; AIDS; chronic rejection; organ;
                                                                                                                                                                                                                                                                                                                                    Sequence 1553 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      and infectious diseases.
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DB; ADQ96035.
                                                                                                                                                                                                                                                                                                                                                                     activation.
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                                                                                                                                                NLQLINALVLYVGTQAIAHIHNKGSTPSMSTITHSAHMDIFQNLAVDLDTEGRYLFLNAI
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQ ID NO 214; 2828pp; English
                                                                              ANQLRYPNSHTHYFSCTMLYLFAEANTEAIQEQITRVLLERLIVNRPHPWGLLITFIELI
                                                                                                                               NLQLINALVLYVGTQAIAHIHNKGSTPSMSTITHSAHMDIFQNLAVDLDTEGRYLFLNAI
                             KNPAFKFWNHEFVHCAPEIEKLFQSVAQCCMGQKQAQQVMEGTGAS
                                                                ANQLRYPNSHTHYFSCTMLYLFABANTEAIQEQITRVLLERLIVNRPHPWGLLITFI
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Pred. No. 5.2e-123;
                                                                                                                                                                                                                                                              Mismatches
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RESULT 7

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Matches 225
                                                                                                                                                                                                                                                                                                                                                                   AAY02358-84 represent novel polypeptides which are identified from a human placental cDNA library by the signal sequence trap (SST) method. The polypeptides are encoded by the cDNA sequences in AAX35694-X35747. The polypeptides have a broad range of physiological activity, including immunisation against and inhibition of infections, allergies and cancer; regulation of tissue formation and repair; activin/inhibin activity; chemokine/cytokine activity; blood coagulation regulation; and receptor/ligand agonist or antagonist activity. The polypeptides can be used for prevention and treatment of disorders including infections by bacteria, yeasts and viruses (including HIV) and protozoa; metabolic and hormonal disorders; immune disorders (including severe combined immunodeficiency (SCID) and AIDS; thrombosis; cancer; and traumatic or
                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 1999-277254/23.
N-PSDB; AAX35732, AAX35733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Signal sequence trap method; SST method; immunisation; inhibition; infection; allergy; cancer; regulation; tissue formation; tissue repair; activin activity; inhibin activity; chemokine activity; cytokine activity; blood coagulation; regulation; agonist; antagonist; metabolic disorder; hormonal disorder; immune disorder; wound; severe combined immunodeficiency; SCID; AIDS; thrombosis; cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 1; Page 178-186; 281pp; Japanese
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Polypeptides identified by the signal sequence trap method {f cDNA} library.
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                                                                                                                                                NLQLINALVLYVGTQAIAHIHNKGSTDSMSTITHSAHMDIFQNLAVDLDTEGRYLFLNAI 132
                                                                                                                                                                                          QVDMLSBINIAPRILTNFTGVMPPQFKKDLDSYLKTRSPVTFLSDLRSNLQVSNBPGNRY 72
KNPAFKFWNHEFVHCAPEIEKLFQSVAQCCMGQKQAQQVMEGTGAS
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                                                             ANQLRYPNSHTHYFSCTMLYLFABANTBAIQEQITRVLLERLIVNRPHPWGLLITFIBLI
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Pred. No. 6e-123;
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Matches 225
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New isolated protein complex comprising a first and second protein, useful for the diagnosis and treatment of disorders involved in the protein-protein interaction, such as inflammatory disease, atherosclerosis or hypoxic brain injury.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                sequence of PN13734
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 117; Page 23-24; 77pp; English.
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N-PSDB; ABQ79531.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human PN13734
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                                                 KNPAFKFWNHEFVHCAPEIEKLFQSVAQCCMGQKQAQQVMEGTGAS
                                                                                                                                                         ANQLRYPNSHTHYFSCTMLYLFABANTBAIQEQITRVLLBRLIVNRPHPWGLLITFIBLI
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KNPAFKFWNHEFVHCAPEIEKLFQSVAQCCMGQKQAQQVMEGTGAS 2141
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ilarity 99.6%;
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Pred. No. 8.3e-123;
1; Mismatches 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The invention relates to isolated polynucleotides which are differentially-regulated in breast cancer. The methods and compositions of the present invention are useful for detecting, diagnosing, staging, monitoring, prognosticating, preventing and/or treating diseases and conditions relating to breast cancer, and may be used in gene therapy or antisense therapy. They can also be used in research, drug discovery, clinical medicine and forensic medicine. Sequences given in records ABR58278-ABR58323 and ABR58346-ABR58362 represent polypeptides encoded by polynucleotides of the invention that are differentially-regulated in the present polypeptides of the invention that are differentially-regulated in the present polynes.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   breast cancer. NOTE: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO at ftp.wipo.int/pub/published_pct_sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New isolated human differentially-regulated breast cancer polynucleotide and polypeptide, useful for diagnosing, staging, prognosticating, preventing and/or treating diseases and conditions relating to breast
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      03-OCT-2001; 2001US-0326526P
14-MAY-2002; 2002US-00144194
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                          94.8%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Kovacs KF,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           72
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                                                                                                                                                                                                                                                                                                                                                                                                                                Score 1178; DB 6;
Pred. No. 9.7e-123;
1; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ₿
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 2376;
                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                      <u>,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                         2330
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                                                                                                                                              192
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Best Local S
Matches 225
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27-DEC-2002;
25-APR-2003;
                                                                                                                                                                                                                 The invention relates to purified proteins and genes encoding them, that are involved in T cell activation (1) and has an amino acid deletion, substitution or addition in the amino acid sequences. The methods and compositions of the present invention are useful for the diagnosis, prevention and/or treatment of autoimmune disease (rheumatoid arthritis, asthma, multiple sclerosis and diabetes), allergic disease, infectious disease, AIDS, and acute or chronic rejection at organ transplant or bond marrow transplant. This sequence corresponds to a protein involved in T
                                                                                                                                                                                                                                                                                                                                                                                            New purified protein involved in T cell activation, useful for diagnosing, preventing and/or treating acquired immunodeficiency syndrome, autoimmune (e.g. rheumatoid arthritis, and diabetes), allergic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gene therapy; T cell activation; diagnosis; autoimmune disease; rheumatoid arthritis; asthma; multiple sclerosis; diabetes; allergic disease; infectious disease; AIDS; chronic rejection; organ;
                                                                                                                                                                          Sequence 2376 AA;
                                                                                                                                                                                                                                                                                                                                                     Claim 1; SEQ ID NO 212; 2828pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matsuda
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             28-APR-2003;
21-OCT-2003;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               antiallergic; antiarthritic; antiasthmatic;
antimicrobial; antirheumatic; immunosuppres
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     07-OCT-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADQ96034 standard;
                                                                                                                                                                                                                                                                                                                                                                                    and infectious diseases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   25-DEC-2003; 2003WO-JP016715.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                15-JUL-2004
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      bone-marrow transplant.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ASAH-)
                                                                                                                                Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2004-593134/57.
                                                                                                                                                                                                        activation.
                                                                                                               225;
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                           NLQLINALVLYVGTQAIAHIHNKGSTPSMSTITHSAHMDIFQNLAVDLDTEGRYLFLNAI
                                                                      QVDMLSEINIAPRILTNFTGVMPPQFKKDLDSYLKTRSPVTFLSDLRSNLQVSNEPGNRY
 NLQLINALVLYVGTQAIAHIHNKGSTPSMSTITHSAHMDIFQNLAVDLDTEGRYLFLNAI
                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2002JP-00376365.

2002US-0436473P.

2003JP-00122113.

2003US-0465792P.

2003JP-00360559.

2003US-0512846P.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    KASEI PHARMA CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             antirheumatic; immunosuppressive;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          associated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               protein; 2376 AA.
                                                                                                                               94.8%;
                                                                                                                               Score 1178; DB 8;
Pred. No. 9.7e-123;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          protein #106.
                                                                                                                  Mismatches
                                                        LDSYLKTRSPYTFLSDLRSNLQVSNEPGNRY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             antidiabetic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               neuropro
                                                                                                                                            Length 2376;
                                                                                                                  Indels
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                                                                                                                                                                                                                                           Query Match
Best Local Simi
Matches 184;
                                                                                                                                                                                                                                                                                                                                    This invention relates to a novel gene cluster, where the encoded proteins are expressed in the nervous system of sea-squirt tailbud embryo or larva. The invention is useful for studying the development of the nervous system of the sea-squirt and for research purposes. The genes may be used for determining the disease-development mechanisms in the nervous system. In addition, movel gene clusters expressed in nervous system of sea-squirt tailbud embryo or larva allows development of diagnostics and therapeutics related to nervous system diseases. The present sequence is that of a protein encoded by a C intestinalis gene of the invention.
                                                                                                                                                                                                                                                                                                             Sequence 1167 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Novel genes derived from Ciona intestinalis (sea squirt), expressed in nervous system in the tailbud embryo or larva, useful for studying the development of nervous system.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADQ08792 standard; protein; 1167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      31-JUL-2002; 2002JP-00222532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      31-JUL-2002; 2002JP-00222532.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ciona intestinalis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     nervous
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gene cluster; nervous system; sea-squirt tailbud; embryo; larva;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ciona intestinalis nervous system associated protein SeqID194.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  26-AUG-2004 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (KAGA-) KAGAKU GIJUTSU SHINKO JIGYODAN
                                                  1051
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2331
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                    193
                                                                                                                  991
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                                                                                                                                                73
                                                                                                                                                                                               13 QVDMLSEINIAPRILINPTGVMPPQPKKDLDSYLKTRSPVTFLSDLRSNLQVSNEPGNRY
                                                                                                                                                                                                                                                              Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     system
KNPAFKFWNHEFVHCAPEIEKLFQSVAQCCMGQKQAQQVMEGTGAS 238
                                                  ANQLRYPNSHTHYPSCTLLYLPAETNQESIQEQITRVLLERLIVNRPHPWGLLITFIELI
                                                                      ANQLRYPNSHTHYFSCTMLYLFAEANTEAIQEQITRVLLERLIVNRPHPWGLLITFIELI
                                                                                                                NVPLINSLVLHVGTQAIAYIHNKGGSPSMATITHSSHMDIFQNLAVDLDTEGRYLFLNAI
                                                                                                                                               NLQLINALVLYVGTQAIAHIHNKGSTPSMSTITHSAHMDIFQNLAVDLDTEGRYLFLNAI
                                                                                                                                                                              KVDMLQEINVAPRILTNFIAVMPAQFQKDLDSYLKTRAPVTFLSDLRTNLQISNERGIKY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   KNPAFKFWNHEFVHCAPEIEKLFQSVAQCCMGQKQAQQVMEGTGAS 238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               KNPAFKFWNHEFVHCAPEIEKLFQSVAQCCMGQKQAQQVMEGTGAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ANQLRYPNSHTHYPSCTMLYLFABANTBAIQEQITRVLLERLIVNRPHPWGLLITFIBLI 2330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ANQLRYPNSHTHYFSCTMLYLFAEANTEAIQEQITRVLLERLIVNRPHPWGLLITFIELI 192
                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NO 194; 897pp; Japanese.
                                                                                                                                                                                                                                                         79.18;
                                                                                                                                                                                                                                             22;
                                                                                                                                                                                                                                                          Score 983; DB 8;
Pred. No. 3.8e-101;
                                                                                                                                                                                                                                             Mismatches
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                                                                                                                                                                                                                                                                         Length 1167;
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                                                                                                                                                                                                                                           Gaps
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                                                  1110
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156 KVDMLSEINIAPRILTNFTGVMPPQFKKDLDSYLKTRSPVTFLSDLRSNLQVSNEPGNRY 13 QVDMLSEINIAPRILTNFTGVMPPQFKKDLDSYLKTRSPVTFLSDLRSNLQVSNEPGNRY

215

Indels

2

Gaps

Matches

Similarity

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RESULT 12
ABG04093
                                                                                                                                                   The invention relates to isolated polynucleotide (I) and polypeptide (II) CC sequences. (I) is useful as hybridisation probes, polymerase chain CC reaction (PCR) primers, oligomers, and for chromosome and gene mapping, and in recombinant production of (II). The polynucleotides are also used CC and in recombinant production of (II). The polynucleotides are also used CC genes. (I) is useful in gene therapy techniques to restore normal CC activity of (II) or to treat disease states involving (II). (II) is CC useful for generating antibodies against it, detecting or quantitating a CC polypeptide in tissue, as molecular weight markers and as a food CC supplement. (II) and its binding partners are useful in medical imaging CC supplement; (II) and its binding partners are useful for treating disorders CC involving aberrant protein expression or biological activity. The CC diagnostics, forensics, gene mapping, identification of mutations in CC diagnostics, forensics, gene mapping, identification of mutations CC and to produce other types of data and products dependent on DNA and CC and to produce other types of data and products dependent on DNA and CC amino acid sequences. Abgonolo-Abg30377 represent novel human diagnostic patent did not appear in the printed specification, but was obtained in CC electronic format directly from WIPO act for paying the paying the paying and contains and contains and contains and intention of the printed specification and contains of the invention. Note: The sequence data for this capacity of the paying and the printed specification of the paying and contains of the printed specification of the sequence data for this capacity of the sequence 
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                         Query Match
Best Local
                                                                                               Sequence 354 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New isolated polynucleotide and encoded polypeptides, useful diagnostics, forensics, gene mapping, identification of mutat responsible for genetic disorders or other traits and to asse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      31-MAR-2000; 2000US-00540217.
23-AUG-2000; 2000US-00649167.
                                                                                                                                         ftp.wipo.int/pub/published_pct_sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 20; SEQ ID NO 34452; 103pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2001-639362/73
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human; chromosome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Novel human diagnostic protein #4084
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   13-FEB-2002
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      n; chromosome mapping; gene mapping; gene therapy; forensic
supplement; medical imaging; diagnostic; genetic disorder.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RT, Liu C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HYSEQ INC.
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                      79.0%;
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Score 982; DB
Pred. No. 8.4e
2; Mismatches
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                      DB 4; 1
3.4e-102;
                                             Length 354;
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Matches 184
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11-JAN-2000;
02-MAY-2000;
                                                                                                                                                      The invention relates to primers for synthesising full length cDNA clones. 830 cDNA molecules encoding a human protein have been isolated and muclectide sequences of 5'- and 3'-ends of the cDNA molecules have been determined. Primers for synthesising the full length cDNA are useful for clarifying the function of the protein encoded by the cDNA. The full length clones were obtained by construction of full length enriched cDNA libraries that were synthesised by the oligo-capping method. The primers enable the production of the full length clones series equence is a polyperide encoded by a full length human cDNA of the invention. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in CD-ROM for the printed specification, but was obtained in CD-ROM for the printed specification, but was obtained in CD-ROM for the printed specification, but was obtained in CD-ROM for the printed specification, but was obtained in CD-ROM for the printed specification, but was obtained in CD-ROM for the printed specification and the control of the printed specification.
                                                                                                                                                                                                                                                                                                                                                                 830 Primers useful for synthesizing in genetic manipulation.
                                                                                                                                                                                                                                                                                                                                    Claim
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ota T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             06-NOV-2001
                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    07-JUL-2000; 2000EP-00114089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 05-SEP-2001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAM93552 standard;
                                                                                                                                             format directly from BPO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (HELI-)
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                                                          184;
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                                                                                                                                                                                                                                                                                                                                                                                                            AAK94484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Nishikawa T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HELIX RES INST.
                                                                        Similarity
                                                                                                                  873
                                                                                                                                                                                                                                                                                                                                    SEQ ID NO 3315; 1380pp + Sequence Listing; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LIKNPAFKFWNHEFVHCAP 209
ANQLRYPNSHTHYPSCTMLYLFA-EANT-EAIQEQITRVLLERLIVNRPHPWGLLITFIE 190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NLQLINALVLYVGTQAIAHIHNKGSTPSMSTITHSAHMDIFQNLAVDLDTEGRYLFLNAI
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                                                                                                                                                                                                                                                                                                                                                                                                                                                     ₽,
                                                         76.5%; llarity 99.5%; Conservative
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2000JP-00118774.
2000JP-00183765.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sugiyama T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cDNA; cDNA synthesis; oligo-capping.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Isogai T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Nagai K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        873
                                                         Score 951; DB 4
Pred. No. 1e-97;
1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3315.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                    Hayashi K,
K, Kojima
                                                                                                                                                                                                                                                                                                                                                                             full length cDNA clones
                                                                                    DB 4;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ishii S,
                                                         0,
                                                                                    Length 873;
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Otsuki T, Koga
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                                                         Gaps
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RESULT 14
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ID ADL31
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                                                                                   Query Match
Best Local (
                                                                          Matches
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11-JAN-2000;
02-MAY-2000;
                                                                                                                                             This invention relates to a novel primers useful for synthesising full length cDNA molecules that encode human proteins. Specifically, it refers to secretory or membrane proteins that are potential therapeutic agents/ target molecules in the field of medicine, and in particular genes encoding proteins that are associated with signal transduction, glycoproteins and transcription. The present invention describes a method for efficiently cloning a full length human cDNA from both the 5° and 3° ends using the oligo-capping method. This polypeptide sequence is a full length human protein of the invention.
                                                                                                                                                                                                                                                                                                                                                                           Ota T, Ni
Wakamatsu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    oligo-capping
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human protein
                                                                                                                       Sequence 873
                                                                                                                                                                                                                                                                          Example 1; SEQ ID NO 3315; 1340pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EP1396543-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   human; medicine; signal transduction; glycoprotein; transcription;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20-MAY-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADL31282 standard;
                                                                                                                                                                                                                                                                                                              New oligonucleotide primers (830 cDNAs) useful for synthesizing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10-MAR-2004.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens.
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                                                                                                                                                                                                                                                                                                                                                                                                                  (REAS-)
                                                                                   Local Similarity
                                                                                                                                                                                                                                                                                                                                        2004-204755/20.
DB; ADL31281.
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su A, Sugiyama
                                     NLQLINALVLYVGTQAIAHIHNKGSTPSMSTITHSAHMDIFQNLAVDLDTEGRYLFLNAI
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                       KVDMLSEINIAPRILTNETGVMEPQFKXDLDSYLKTRSEVTFLSDLRSNLQVSNEEGNRY
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                                                                                                                                                                                                                                                                                                                                                                                                                                         ; 99JP-00194486.
; 2000JP-00118774.
; 2000JP-00183865.
; 2000EP-00114089.
                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                  ASSOC BIOTECHNOLOGY
                                                                                                                                                                                                                                                                                                   CDNAs.
                                                                                                                         AA;
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                                                                                    76.5%;
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a T, Nagai
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                                                                        <u>,</u>
                                                                                    Score 951; DB 8
Pred. No. 1e-97;
                                                                          Mismatches
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K, Kojima
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S, Otsuki
                                                                                               8; Length 873;
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T, Koga
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RESULT 15
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                                                                                                                                                                                                                    Matches
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                   The invention relates to an isolated nucleic acid detection reagent capable of detecting 1000 or more genes from Drosophila. The invention useful in developmental biology and in elucidating cell signalling and cell-cell interactions in higher eukaryotes for the development of insecticides, therapeutics and pharmaceutical drugs. The invention discloses genomic DNA sequences (ABL16176-ABL30511), expressed DNA sequences (ABL16176-BL16175) and the encoded proteins (ABB57737-ABB72072). The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIFO at ftp.wipo.int/pub/published_pct_sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New isolated nucleic acid
genes from Drosophila and
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N-PSDB; ABL02734.
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11-JUL-2000; 2000US-00614150.
                                                                                                                                                                                                                                                                                                                            Sequence 1766 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Disclosure; SEQ ID NO 2685; 21pp + Sequence Listing; English
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QVDMLSEINIAPRILTNP-TGVMPPQFKKDLDSYLKTRSPVTFLSDLRSNLQVSNEPGNR 71:|||||:|||:||| 71
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                                                                                                                                                                                                                    30;
                                                                                                                                                                                                                                           Score 873; DB 4; Length 1766; Pred. No. 2e-88;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Myers EW;
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                                                                                                                                                                                                                    Indels
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Search completed: July 14, 2005, 20:27:10 Job time: 84.9612 secs

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Result
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Maximum Match 100%
Listing first 45 summaries
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Perfect score:
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Maximum DB seq length: 2000000000
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                                                                                                                                                                                                                                                                                                                                                                                                                             Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                          Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Published_Applications_AA:*

1: /cgn2_6/ptodata/2/pubpaa/USO7_PUBCOMB.pep:*

2: /cgn2_6/ptodata/2/pubpaa/USO7_NEW_PUB.pep:*

3: /cgn2_6/ptodata/2/pubpaa/USO6_NEW_PUB.pep:*

4: /cgn2_6/ptodata/2/pubpaa/USO6_PUBCOMB.pep:*

5: /cgn2_6/ptodata/2/pubpaa/USO7_NEW_PUB.pep:*

6: /cgn2_6/ptodata/2/pubpaa/USO7_NEW_PUB.pep:*

7: /cgn2_6/ptodata/2/pubpaa/USO8_NEW_PUB.pep:*

9: /cgn2_6/ptodata/2/pubpaa/USO8_PUBCOMB.pep:*

9: /cgn2_6/ptodata/2/pubpaa/USO8_PUBCOMB.pep:*

9: /cgn2_6/ptodata/2/pubpaa/USO9A_PUBCOMB.pep:*

10: /cgn2_6/ptodata/2/pubpaa/USO9A_PUBCOMB.pep:*
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Gapop 10.0 , Gapext 0.5
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1243
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GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
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/ cgn2_6/ptodata/2/pubpaa/US09C_PUBCOME.pep:*
/ cgn2_6/ptodata/2/pubpaa/US09C_PUBCOME.pep:*
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/ cgn2_6/ptodata/2/pubpaa/US11C_PUBCOME.pep:*
/ cgn2_6/ptodata/2/pubpaa/US11C_PUBCOME.pep:*
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                WS-10-414-378-58
WS-10-014-814-6
7 US-10-690-276-10
5 US-10-144-194A-72
5 US-10-491-566-72
5 US-10-491-5760
5 US-10-424-599-180820
5 US-10-425-114-59023
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          Sequence 2853, Appl
Sequence 58, Appl
Sequence 58, Appl
Sequence 6, Appli
Sequence 10, Appl
Sequence 72, Appl
Sequence 72, Appl
Sequence 5760, Ap
Sequence 180820,
Sequence 180820,
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-10-108-260A-45	-10-295-027-122	-10-424-599-18	-10-425-114-5555	-10-425-115-22015	-10-282-122A-702	-10-437-963-	-10-437-963-15179	-10-408-765A-299	-425-114-585	-10-425-115-33608	-10-282-122A-61	-10-425-115-33211	-10-767-701-475	0-424-599-24	-10-425-115-21373	-10-437-963-1115	-10-767-701-37	-10-369-493-15	0-425-115-29	-10-369-493-34	-10-425-114-36	-10-369-493-21	US-10-741-849-7229	-10-369-493-1336	-10-767-701-31	-10-767-701-5023	-10-437-963-1	-09-768-235B	-10-437-963-122	-10-425-114-377	0-425-115-19	-10-425-114-53929	0-425-115-19
equence 4563,	equence 1222,	equence 1888	equence 55558	equence 22015	e 7028	equence 15179	e 151795	e 29	e 58	e 33608	e 614	equence 3321	e 47530	e 24816	e 21373	equence 11156	e 3702	equence 1537,	291245	equence 3448,	e 38183,	e 2142,	ø	equence 13367,	equence 31806,	e 50233,	equence 1	equence 6, App	e 127	equence 377	e 19	equence 53929	Sequence 192123,

ALIGNMENTS

APPLICANT: ISONO, YUUKO
APPLICANT: HIO, YURI
APPLICANT: OTSUKA, KAORU
APPLICANT: NAGAI, KEIICHI
APPLICANT: NAGAI, KEIICHI
APPLICANT: TAMECHIKA, ICHIRO
APPLICANT: SEKI, NAOHIKO
APPLICANT: OTSUKA, MOTOVUKI
APPLICANT: OTSUKA, MOTOVUKI
APPLICANT: MASCHARI, KENJI
APPLICANT: MASCHARI, KENJI
APPLICANT: MASCHORI, KENJIKO
TITLE OF INVENTION: NOVEL FULL-LENGTH CDNA
FILE REFERENCE: 084335/0160 US-10-094-749-2853 CURRENT APPLICATION NUMBER: US/10/094,749
CURRENT FILING DATE: 2002-03-12
PRIOR APPLICATION NUMBER: 60/350,435
PRIOR FILING DATE: 2002-01-24
PRIOR APPLICATION NUMBER: JP 2001-328381
PRIOR FILING DATE: 2001-09-14
NUMBER OF SEQ ID NOS: 3381
SOFTWARE: Patentin Ver: 2.1 GENERAL INFORMATION: Sequence 2853, Application US/10094749 Publication No. US20030219741A1 SEQ ID APPLICANT: APPLICANT: APPLICANT: ISOGAI, APPLICANT: SUGIYA WAKAMATSU, AI SATO, HIROYUKI ISHII, SHIZUKO YAMAMOTO, JUN-ICHI SUGIYAMA, TOMOYASU OTSUKI, TETSUJI TAKAO

653 648.5 641 641

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; ORGANISM: Homo sapiens
US-10-094-749-2853
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US-09-529-063-58
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Matches
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SEQ ID NO 58
LENGTH: 1726
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 58, Application UPatent No. US20020102542A1
                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: FUKUSHIMA, DAIKICHI
APPLICANT: SHIBAYAMA, SHIRO
APPLICANT: TADA, HIDEAKI
TITLE OF INVENTION: POLYPEPTIDE, CDNA ENCODING THE POLYPEPTIDE,
TITLE OF INVENTION: THE BOTH
FILE REFERENCE: Q58769
CURRENT APPLICATION NUMBER: US/09/529,063
CURRENT FILING DATE: 2000-04-07
PRIOR APPLICATION NUMBER: PCT/JP98/04514
PRIOR FILING DATE: 1998-10-06
PRIOR APPLICATION NUMBER: UP 9-274674
PRIOR FILING DATE: 1997-10-07
PRIOR FILING DATE: 1997-110-07
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Local Similarity 99.6%;
les 225; Conservative
1681
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                                                                                                                                          1561 NLQLINALVLYVGTQAIAHIHNKGSTPSMSTITHSAHMDIFQNLAVDLDTEGRYLFLNAI 1620
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                                 193
                                                                                       133 ANQLRYPNSHTHYFSCTMLYLFAEANTEAIQEQITRVLLERLIVNRPHPWGLLITFIELI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  193 KNPAFKFWNHEFVHCAPBIEKLFQSVAQCCMGQKQAQQVMEGTGAS 238
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                KNPAFKFWNHEFVHCAPEIEKLFQSVAQCCMGQKQAQQVMEGTGAS 238
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                                                                                                                                                                                                                                                                                                 94.8%;
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Pred. No. 1.1e-116;
1; Mismatches 0;
                                                                                                                                                                                                                                                                                                  Score 1178; DB 9; Length 1726; Pred. No. 2.2e-116;
                                                                                                                                                                                                                                                                                     Mismatches
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RESULT 3

Conservative

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Sequence 58, Application US/10414378

Publication No. US20030165981A1

GENERAL INFORMATION:
APPLICANT: FUXUSHIMA, DAIKICHI
APPLICANT: SHIBAYAMA, SHIRO
APPLICANT: TADA, HIDEAKI

TITLE OP INVENTION: THE BOTH
FILE OP INVENTION: THE BOTH
FILE OP INVENTION: THE BOTH
FILE OP INVENTION NUMBER: US/10/414,378

CURRENT APPLICATION NUMBER: US/09/529,063

PRIOR PILLING DATE: 2000-04-07

PRIOR APPLICATION NUMBER: US/09/529,063

PRIOR APPLICATION NUMBER: DCT/JP98/04514

PRIOR APPLICATION NUMBER: DCT/J
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Publication No. US20030032058A1
GENERAL INFORMATION:
Query Match
Best Local Similarity
Matches 225; Conserv
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                                                                                                                                                                                                                                                                                                                                               CURRENT APPLICATION NUMBER: US/10/014,814
CURRENT FILING DATE: 2001-12-14
PRIOR APPLICATION NUMBER: US 60/255,063
PRIOR FILING DATE: 2000-12-14
NUMBER OF SEQ ID NOS: 6
SOFTWARE: Patentin version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Myriad Genetics, Inc.
APPLICANT: Cimbora, Daniel M.
APPLICANT: Heichman, Karen
APPLICANT: Bartel, Paul L.
TITLE OF INVENTION: Protein Protein Interactions
FILE REFERENCE: 2318-277-II
                                                                                                                                                                                         LENGTH: 2141
TYPE: PRT
ORGANISM: Homo sapiens
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Local Similarity 99.6%;
les 225; Conservative
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                                    94.8%;
Score 1178; DB 14; Pred. No. 3e-116; 1; Mismatches 0;
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Pred. No. 2.2e-116;
1; Mismatches 0;
                                                                        Length 2141;
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1916 KVDMLSEINIAPRILTNFTGVMPPQFKKDLDSYLKTRSPVTFLSDLRSNLQVSNEPGNRY 1975

QVDMLSEINIAPRILTNETGVMPPQFKKDLDSYLKTRSPVTFLSDLRSNLQVSNEPGNRY

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US-10-690-276-10
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CURRENT APPLICATION NUMBER: 09/727,384
PRIOR APPLICATION NUMBER: 09/727,384
PRIOR PILLING DATE: 2000-12-01
PRIOR PILLING DATE: 1999-12-02
PRIOR PILLING DATE: 2000-02-25
PRIOR PILLING DATE: 2001-04
PRIOR PILLING DATE: 2001-01-04
PRIOR PILLING DATE: 2001-01-04
PRIOR APPLICATION NUMBER: 60/259,571
PRIOR APPLICATION NUMBER: 60/259,572
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PRIOR APPLICATION NUMBER: 60/259,572
PRIOR FILLING DATE: 2001-01-04
PRIOR APPLICATION NUMBER: 10/099,924
PRIOR APPLICATION NUMBER: 60/276,179
PRIOR APPLICATION NUMBER: 60/276,179
PRIOR FILING DATE: 2001-03-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
APPLICANT: Myriad Genetics,
APPLICANT: Cimbora, Daniel
APPLICANT: Heichman, Karen
APPLICANT: Bartel, Paul
                                                                                                                                                                                                           Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                               SEQ ID NO 10
LENGTH: 2141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 10, Application US/10690276 Publication No. US20050112118A1
                                                                                                                                                                                     Matches
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TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING INFLAMMATORY DISORDERS
FILE REFERENCE: 1834.01
                                                                                                                                                                                                                                                                                               TYPE: PRT
ORGANISM: Homo sapiens
1976 NIQLINALVLYVGTQAIAHIHNKGSTPSMSTITHSAHMDIFQNLAVDLDTEGRYLFLNAI 2035
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                            73 NLQLINALVLYVGTQAIAHIHNXGSTPSMSTITHSAHMDIFQNLAVDLDTEGRYLFLNAI 132
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Mauck, Kimberly
Mauck, Angie
Bush, Angie
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                                                                                                                                                                                     Conservative
                                                                                                                                                                                                         94.8%;
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                                                                                                                                                                                     1; Mismatches
                                                                                                                                                                                 Score 1178; DB 17;
Pred. No. 3e-116;
1; Mismatches 0;
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                                                                                                                                                                                                                            Length 2141;
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13 QVDMLSEINIAPRILTNETGVMPPQFKKDLDSYLKTRSPVTFLSDLRSNLQVSNEPGNRY 72 :|||||||||||||||||| 72

US-10-491-566-72

ORGANISM: Homo sapiens

Query Match
Best Local Similarity
Matches 225; Conser

94.8%; ilarity 99.6%; Conservative

Score 1178; DB 16; Pred. No. 3.4e-116; 1; Mismatches 0;

Length Indels

2376;

Gaps

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Sequence 72, Application US/10144194A

Publication No. US20030215809A1

GENERAL INFORMATION:

APPLICANT: Origene Technologies Inc

FILE OF INVENTION: Regulated Breast Cancer Genes

FILE REFERENCE: 3U 103 R1

CURRENT APPLICATION NUMBER: US/10/144,194A

CURRENT FILING DATE: 2002-06-12

NUMBER OF SEQ ID NOS: 114

SOFTWARE: Patentin version 3.0

SEQ ID NO 72

LENGTH: 2376

TYPE: PRT

ORGANISM: Homo sapiens

US-10-144-194A-72
            RESULT 7
US-10-491-566-72
US-10-491-566-72
Sequence 72, Application US/10491566
publication No. US2004024914A1
GENERAL INFORMATION:
APPLICANT: Origene Technologies Inc
TITLE OF INVENTION: Regulated Breast Cancer Genes
FILE REFERENCE: 3U 103 R1
CURRENT APPLICATION NUMBER: US/10/491,566
CURRENT APPLICATION NUMBER: US/10/491,566
CURRENT FILING DATE: 2004-04-05
NUMBER OF SEQ ID NOS: 148
SOFTWARE: Patentin version 3.1
SEQ ID NO 72
LENGTH: 2376
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US-10-144-194A-72
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LENGTH: 23
TYPE: PRT
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Local Similarity 99.6%;
les 225; Conservative
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Pred. No. 3.4e-116;
1; Mismatches 0;
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APPLICANT: Hinkle, Gregory J.
APPLICANT: Slater, Steven C.
APPLICANT: Goldman, Barry S.
APPLICANT: Goldman, Barry S.
APPLICANT: Goldman, Barry S.
APPLICANT: Chen, Xianfeng
TITLE OF INVENTION: EXPRESSION OF MICROBIAL PROTEINS IN
TITLE OF INVENTION: PLANTS WITH INPROVED PROPERTIES
FILE REFERENCE: 38-10 (52052)B
CURRENT APPLICATION NUMBER: US/10/369,493
CURRENT FILING DATE: 2003-02-28
PRIOR FILING DATE: 2003-02-21
NUMBER OF SEQ ID NOS: 47374
                                                                                                                                                                                                                                                     US-10-424-599-180820
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US-10-369-493-5760
                                                                                                                                                                                   Sequence 180820, Application US/10424599 Publication No. US20040031072A1 GENERAL INFORMATION:
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Best Local :
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LENGTH: 2500
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                       APPLICANT: Zhou Yihua
APPLICANT: Cao Yongwei
TITLE OF INVENTION: Soy Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
FILE REFERENCE: 38-21(53223)B
                                                                                       APPLICANT: La Rosa Thomas
APPLICANT: Kovalic David
APPLICANT: Zhou Yihua
APPLICANT: Cao Yongwei
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APPLICANT: Hinl
APPLICANT: Sla
  CURRENT APPLICATION NUMBER: US/10/424,599
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; OTHER INFORMATION:
US-10-425-114-59023
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US-10-425-114-59023
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NUMBER OF SEQ ID NOS:
SEQ ID NO 180820
LENGTH: 394
TYPE: PRT
ORGANISM: Glycine may
                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQ ID NO 59023
LENGTH: 683
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                                                                                                                                                                                                                                                                                                                   Matches 136;
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Best Local Similarity 60.1%;
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CURRENT FILING DATE: 2003-04-28
NUMBER OF SEQ ID NOS: 73128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Kovalic, David K.
APPLICANT: Screen, Steven E
APPLICANT: Tabaska, Jack E
APPLICANT: Cao, Yongwei
TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
EILE REFERENCE: 38-21(53313)B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Liu, Jingdong
APPLICANT: Zhou, Yihua
APPLICANT: Kovalic, Dav
APPLICANT: Screen, Stev
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177 NRPHPWGLLITFIELIKNPAFKFWNHEFVHCAPEIEKLFQSVAQCCMGQKQAQQVMEG 234
                                                                                  117 AVDLDTEGRYLFLNAIANOLRYPNSHTHYFSCTMLYLFAEANTEAIQEQITRVLLERLIV 176
                                                                                                                                                                                                                              442 KIDLLAEISIAPRIMSDVDGALKSKÓLKTEVDEYLKRPEGSSFLSDLNQKLLLPQNEASV 501
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                                                                                                                                                                68 PGNRYNLQLINALVLYYGTQAIAHIHNKGSTPSMST--ITHSAHMDIFQ------NL 116
                                                                                                                                                                                                                                                   69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   17
                                                                                                                                  AGTRYNVPLINSLVFYVGIÓAVQQLQLNKANÞSASVQQINHISÞMDIFQIGTATDIFRSL 561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HPWGLLITFIELIKNPAFKFWNHEFVHCAPEIEKLFQSVAQCCMGQKQAQQVM 232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LDTEGRYLFLNAIANQLRYPNSHTHYFSCTMLYLFAEANTEAIQEQITRVLLERLIVNRP 179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GNRYNLQLINALVLYVGTQAIAHIHNKGSTPSMSTITHS-----AHMDIFQNLAVD 119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HPWGLLITFIELIKNPRYNFWNRSFIRCAPEIEKLFESVSRSCGGPKPVDDSM 389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTRYNVPLINSLVLYVGMQAIHQL--QGRTPHTQTSANAFPLAVFSVGAALDIFQTLIVD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LRETTQSPRILSEVDAALKAKQMKVDVDEYLKTRQQSSP--FLSELKDKLLLSPNEAASA 218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LSEINIAPRILTNFTGVM-PPQFKKDLDSYLKTR---SPVTFLSDLRSNLQVS-NE---P
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                                                                                                                                                                                                                                                                                                                                                                                                                             Clone ID: 700096523_FLI.pep
                                                                                                                                                                                                                                                                                                                                        51.6%;
                                                                                                                                                                                                                                                                                                                 27;
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                                                                                                                                                                                                                                                                                                                   Score 641; DB 15;
Pred. No. 2.3e-59;
?7; Mismatches 55
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                                                                                                                                                                                                                                                                                                                                                             Length 683;
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APPLICANT: Cao, Yongwei

TITLB OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With

TITLB OF INVENTION: Plants and Uses Thereof for Plant Improvement

FILE REFERENCE: 38-21(53313)B

CURRENT PILING DATE: 2003-04-28

NUMBER OF SEQ ID NOS: 73128

LENGTH: 819

TYPE: PTT: 819
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Sequence 70535, Application US/10425114

Publication No. US20040034888A1

GENERAL INFORMATION:
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Publication No. US20040214272A1
GENERAL INFORMATION:
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Best Local Similarity
Matches 136; Conserv
                                                                                                 CURRENT APPLICATION NUMBER: US/10/425,115
CURRENT FILING DATE: 2003-04-28
NUMBER OF SEQ ID NOS: 369326
SEQ ID NO 192123
                                                                                                                                                                       APPLICANT: La ROBA, Thomas J.
APPLICANT: Kovalic, David K.
APPLICANT: Zhou, Yihua
APPLICANT: Cao, Yongwei
TITLE OF INVENTION: Nucleic Acid Molecules
TITLE OF INVENTION: Plants
FILE REFERENCE: 38-21(53222)B
-10-425-115-192123
         OTHER INFORMATION: Clone ID: MRT4577_106800C.1.pep
                                                TYPE: PRT
ORGANISM: Zea mays
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                                   FEATURE:
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                                                                                        LENGTH: 860
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                      177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              117 AVDLDTEGRYLFLNAIANQLRYPNSHTHYFSCTMLYLFAEANTEAIQEQITRVLLERLIV 176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 638
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    578 KIDLLAEISIAPRIMSDVDGALKSKOLKTEVDEYLKRPEGSSFLSDLNOKLLLPONEASV 637
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                                                                                                                                                                                                                                                                                                                                                                                                                              NRPHPWGLLITFIELIKNPAPKFWNHEFVHCAPEIEKLPQSVAQCCMGQKQAQQVMEG 234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ITSLDTEGRYLLLNAIANQLRYPNSHTHYYSFITLYLFSEATQEITQEQITRVLLERLIV 757
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PGNRYNLQLINALVLYVGTQAIAHIHNKGSTPSMST--ITHSAHMDIFQ------NL 116
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57.1%;
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                                                                                                                                                                                                                  and Other Molecules
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US-10-425-114-53929
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US-10-425-114-53929
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APPLICANT: Zhou, Yihua
APPLICANT: Kovalic, David K.
APPLICANT: Kovalic, David K.
APPLICANT: Screen, Steven B
APPLICANT: Tabaska, Jack B
APPLICANT: Cao, Yongwel
TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
FILE REFERENCE: 38-21(53313)B
CURRENT FILING DATE: 2003-04-28
NUMBER OF SEQ ID NOS: 73128
SEQ ID NO 53929
LENGTH: 215
                                                                                                                                                                                                                                                                                         Best Loc
Matches
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ORGANISM: Glycine max
FEATURE:
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                                                                                                                                                                                                                                                                                                           Local
                                                                                       179
                    201 NHEFVHCAPEIEKLFQSVAQCCMGQKQAQQVM 232
                                                                      119 TNTHYFSFILLYLFAESNQEVIQEQITRVLLERLIVNRPHPWGLLITFIELIKNPRYNFW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     177
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                                                                                                                                                                                                                                                                                           134;
                                                                                                                                                                 61 HQL--QGRTPHTQTSANAFPLAVFSVGAALDIFQTLIVDLDTEGRYLFLNAIANQLRYPN
                                                                                                                                                                                                                                    37 QFKKDLDSYLKTR---SPVTFLSDLRSNLQVS-NE---PGNRYNLQLINALVLYYGTQAI
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                                                                                                                                                                                                                                                                                                           Similarity
NRSFIRCAPEIEKLFESVSRSCGGPKPVDDSM 210
                                                                                                                                                                                                                 QMKVDVDEYLKTRQQSSP--PLSELKDKLLLSPNBAASAGTRYNVPLINSLVLYVGMQAI
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGTRYNVPLINSLVFYVGIQAVQQLQLNKANPSASVQQINHISPMDIFQIGTATDIFRSL 738
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                                                                                                                                                                                                                                                                                        51.1%; Score 635; DB 1:
ilarity 63.2%; Pred. No. 2e-59;
Conservative 20; Mismatches
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; Pred. No. 3.2e-59;
27; Mismatches 55;
                                                                                                                                                                                                                                                                                                                          DB 15; Length 215;
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Sequence 192119, Application US/10425115
Publication No. US20040214272A1
GENERAL INFORMATION:

APPLICANT: La Rosa, Thomas J.

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APPLICANT: Zhou, Yihua

APPLICANT: Kovalic, David K.
APPLICANT: Screen, Steven E
APPLICANT: Tabaska, Jack E
APPLICANT: Tabaska, Jack E
APPLICANT: Cao, Yongwei

TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
FILE REFERENCE: 38-21(5331)B
CURRENT APPLICATION NUMBER: US/10/425,114
CURRENT FILING DATE: 2003-04-28
NUMBER OF SEQ ID NOS: 73128
SEQ ID NO 37764
LENCTH: 443
TYPE: PRT
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                                                                                                                                  ; ORGANISM: Zea mays
; PEATURE:
; OTHER INFORMATION: Clone ID: LIB3245-490-C9_FLI.pep
US-10-425-114-37764
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; LOCATION: (1)...(443)
; OTHER INFORMATION: unsure at all Xaa locations
; PEATURE:
; OTHER INFORMATION: Clone ID: MRT4577_106798C.1.pep
US-10-425-115-192119
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APPLICANT: Cao, Yongwei
TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants
FILE REFERENCE: 38-21(5222)B
CURRENT APPLICATION NUMBER: US/10/425,115
CURRENT FILING DATE: 2003-04-28
NUMBER OF SEQ ID NOS: 369326
SEQ ID NO 192119
LENGTH: 443
                                                         Query Match
Best Local Similarity
Matches 136; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 49.7
Best Local Similarity 56.9
Matches 136; Conservative
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ORGANISM: Zea mays
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  176 VNRPHPWGLLITFIBLIKNPAFKFWNHEFVHCAPEIEKLFQSVAQCCMGQKQAQQVMEG 234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       321 ITSFDTEGRYLLINAIANQLRYPNSHTHYYSFIILHLFAEATQXEIIQEQITRVLLERLI 380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              117 AVDLDTEGRYLFLNAIANQLRYPNSHTHYFSCTMLYLFABA-NTEAIQEQITRVLLERLI 175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              201 KIDLLABISIAPRIMSDVDGTLKSKQLKTBFDBYLKRPBGSSFLSVLKQNLLLPQNBAAV 260
13 QVDMLSBINIAPRILTNFTGVM-PPQFKKDLDSYLKTRSPVTFLSDLRSNLQV-SNE---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          13 QVDMLSEINIAPRILTNFTGVM-PPQFKKDLDSYLKTRSPVTFLSDLRSNLQV-SNE---
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Zhou, Yihua
                                                         49.6%; ilarity 56.9%; Conservative 2
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                                                                        Score 616.5; DB 15; Length 443; Pred. No. 5.4e-57;
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                                                         Indels 21;
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Search completed: July 14, 2005, 20:37:44 Job time : 74.2171 secs

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protein F57B9.2 [imported] - Caenorhabditis elegans
C;Species: Caenorhabditis elegans
C;Species: Caenorhabditis elegans
C;Species: Caenorhabditis elegans
C;Species: 10-May-2001 #sequence_revision 10-May-2001 #text_change 09-Jul-2004
C;Accession: G88493
R;anonymous, The C. elegans Sequencing Consortium.
Science 282, 2012-2018, 1998
A;Fitle: Genome sequence of the nematode C. elegans: a platform for investigating biological plants of the plants of

A; Accession: G88493

RESULT G88493

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KNPAFKFWNHEFVHCAPEIEKLFQSVAQCCMGQKQAQQVMEGTGAS 1100 KNPAFKFWNHEFVHCAPEIEKLFQSVAQCCMGQKQAQQVMEGTGAS ANQLRYPNSHTHYPSCTMLYLPABANTBAIQBQITRVLLERLIVNRPHPWGLLITFIELI 1054

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1994	NLQLINALVLYVGTQAIAHIHNKGSTPSMSTITHSAHMDIFQNLAVDLDTEGRYLFLNAI ANQLRYPNSHTHYFSCTMLYLFAEANTEAIQEQITRVLLERLIVNRPHPWGLLITFIELI	TAHIH	VLYVGTQA	ILQLINAL	935 N 133 A	B & B
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	EMBL:AL117492 ; clone DKFZp434N241	9UFR8; cestis;	n	mRNA 100 < PO ICES: UN BOUTCE:	A; Nolecule type: mRNA A; Residues: 1-1100 < POU> A; Residues: 1-1100 < POU> A; Residues: 1-1100 < POU> A; Cross-references: UNIPROT: Q9UFR8; A; Experimental source: adult testis C; Genetics: A; Note: DKFZp434N241.1	A; Molecu A; Resid A; Cross A; Cross A; Exper C; Genet A; Note:
	. Mewes, H.W.; Gassenhuber, J.; Wiemann, S. Sequence Database, September 1999 23	nce Data	, M.; Mewes, tein Sequenc Z18723	to the Protein to the Protein e number: Z1877 on: T17270	R;Poustka, A.; Klein, submitted to the Prote A;Reference number: Z1 A;Accession: T17270	R; Poustka, submitted A; Referenc A; Accessio
Ă	tens (man) #sequence_revision 15-Oct-1999 #text_change 09-Jul-2004	revis	s (man) equence_	1999 #s 7270	C;Species: Homo sapiens (man) C;Date: 15-Oct-1999 #sequence C;Accession: T17270	C;Spe C;Dat
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RESULT 3
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77123.15 protein - Arabidopsis thaliana
C;Species: Arabidopsis thaliana (mouse-ear cress)
C;Species: Arabidopsis thaliana (mouse-ear cress)
C;Species: Arabidopsis thaliana (mouse-ear cress)
C;Date: 02-Mar-2001 #sequence_revision 02-Mar-2001 #text_change 09-Jul-2004
C;Accession: G86152
R;Theologis, A.; Ecker, J.R.; Palm, C.J.; Pederspiel, N.A.; Kaul, S.; White, O.; Alonso, Chin, C.W.; Chung, M.K.; Conn, L.; Conway, A.B.; Conway, A.R.; Creasy, T.H.; Dewar, K.; ansen, N.F.; Hughes, B.; Huizar, L.
A;Authors: Hunter, J.L.; Jenkins, J.; Johnson-Hopson, C.; Khan, S.; Khaykin, E.; Kim, C. C.A.; Li, J.H.; Li, Y.; Lin, X.; Liu, S.X.; Liu, Z.A.; Luros, J.S.; Maiti, R.; Marziali, Rizzo, M.; Rooney, T.; Rowley, D.; Sakano, H.
A;Authors: Salzberg, S.L.; Schwartz, J.R.; Shinn, P.; Southwick, A.M.; Sun, H.; Tallon, Ker, M.; Wu, D.; Yu, G.; Fraser, C.M.; Venter, J.C.; Davis, R.W.
A;Reference number: A86141; MUID:21016719; PWID:11130712
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A;Molecule type: DNA
A;Rosidues: 1-2500 <STO>
A;Crosidues: 2500 <STO>
C;Genetics: CNIPROT:Q20937; GB:chr_III; PIDN:AAA21168.1; PID:g532816; GSPDB:GNOC;A;Genetics: A;Genetics: A
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                                                                                                                                                                                                                                                                  1694 SAGTRYSVPLINSLVLYTGMQAIQQL-QAGETQAQNVVA----LQMFKYLSMELDTEGRY 1748
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TFIELIKNPRYSFWKQAFIRCAPEIEKLFESVARSCGGLKPVDEGMVSGG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    49.5%;
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; Pred. No. 1.4e-49;
34; Mismatches 70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 615.5; DB 2;
Pred. No. 2.1e-46;
3; Mismatches 58;
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A;Molecule type: DNA
A;Residues: 1-1864 <BER>
A;Cross-references: EMBL:X59720; MIPS:YCR093W
R;van der Linden, C.G.; Maurer, C.T.C.; Plants
submitted to the Protein Sequence Database, Mi
                                                                                                                                                   A; Molecule type: DNA, A; Molecule type: DNA, A; Residues: 1-525, A; (527-568, 'R', 570-1297, 'L', 1299-2108 <CO2>A; Cross-references: EMBL:X70151; NID:g287910; PIDN:CAA49721.1; R; Bergantino, E.; Carignani, G.; Lanfranchi, G.; Valle, G. submitted to the Protein Sequence Database, March 1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 5

S28417

CDC39 protein - yeast (Saccharomyces cerevisiae)

N;Alternate names: protein YCR093w

C;Species: Saccharomyces cerevisiae

C;Date: 28-May-1993 #sequence revision 28-May-1993 #text_change 09-Jul-2004

C;Accession: $28417; $31469; $19509; $19770
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               t7i23.15 protein - fission yeast (Schizosaccharomyces pombe)
C;Species: Schizosaccharomyces pombe
C;Date: 03-Dec-1999 #sequence_revision 03-Dec-1999 #text_change 09-Jul-2004
C;Accession: T38128
R;Badcock, K; Churcher, C.M.; Wood, V.; Barrell, B.G.; Rajandream, M.A.
submitted to the EMBL Data Library, May 1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT
                                                                                                                                                                                                                                                                    R;Collart, M.A.
submitted to the EMBL Data
A;Reference number: S31469
A;Accession: S31469
                                                                                                                                                                                                                                                                                                                                                                                                                            A;Title: CDC39, an essential nuclear protein that negatively regulates A;Reference number: S28417; MUID:93154319; PMID:8428577 A;Accession: S28417
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                                                                                                                A; Reference number: S19508
A; Accession: S19509
                                                                                                                                                                                                                                                                                                                                                           A;Molecule type: DNA
A;Residues: 1-2108 <COL>
A;Cross-references: UNIPROT:P25655;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            R, Collart, M.A.; Struhl, 1
EMBO J. 12, 177-186, 1993
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A;Gene: SPDB:SPAC20G8.06
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A; Accession: T38128
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Pred. No. 1.2e-19;
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                         Planta,
      nta, R.J.; van
March 1992
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                             Vliet-Reedijk,
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                             J.C.; Vreken,
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F;269-285/Domain: transmembrane #status predicted <TM2>
F;342-358/Domain: transmembrane #status predicted <TM3>
F;342-358/Domain: transmembrane #status predicted <TM4>
F;366-402/Domain: transmembrane #status predicted <TM4>
F;562-578/Domain: transmembrane #status predicted <TM5>
F;663-680/Domain: transmembrane #status predicted <TM6>
F;663-680/Domain: transmembrane #status predicted <TM9>
F;463-4858/Domain: transmembrane #status predicted <TM9>
F;442-858/Domain: transmembrane #status predicted <TM10>
F;1439-1455/Domain: transmembrane #status predicted <TM10>
F;1655-1656/Domain: transmembrane #status predicted <TM11>
F;1751-1767/Domain: transmembrane #status predicted <TM12>
F;1773-1789/Domain: transmembrane #status predicted <TM13>
F;1801-1817/Domain: transmembrane #status predicted <TM14>
F;1928-1944/Domain: transmembrane #status predicted <TM14>
                                                                                                                                                                                                                                                                     A;Status; preliminary
A,Molecule type; DNA
A;Residues; 1-2819 <KUR>
A;Cross-references; UNIPROT;Q98QP8; GB:AL445566; PID:g14089727; PIDN:CAC13486.1; GSPDB:
A;Experimental source: strain UAB CTIP
                                                                                                                                                                                                                                                                                                                                                                                                                                   C;Accession: A90551
R;Chambaud, I.; Heilig, R.; Ferris, S.; Barbe, V.; Samson, D.; C
Nucleic Acids Res. 29, 2145-2153, 2001
A;Title: The complete genome sequence of the murine respiratory
A;Reference number: A99512; MUID:21267165; PMID:11353084
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 conserved hypothetical protein MYPU_3130 [imported] - Mycoplasma pulmonis (strain UAB C;Species: Mycoplasma pulmonis C;Date: 24-May-2001 #sequence_revision 24-May-2001 #text_change 09-Jul-2004 C;Accession: A90551
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A;Accession: S19770
A;Molecule type: DNA
A;Residues: 1852-2107 <LIN>
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                                                                                                                                                                                               Gene: MYPU 3130;
Genetic code: SGC3;
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14 VDMLSEINIAPRILTNFTGVMP---PQFK-KDLDSYLK--TRSFVTFLSD----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             63,
                                                                                    62; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         IHNKGSTPSMSTITHSAHMDIFQNLAVDLDTEGRYLFLNAIANQLRYPNSHTHYFSCTML 151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    KKOLDSYLKTRSPV---TFLSDL-RSNLQVSNEPGNRY---NLQLINALVLYVGTQAIAH 91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IBYKRTSSNAVFNTKSSYYTLLFNLIQNGSIEMKYQIILSIVEQLRYPNIHTYWFSFVLM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  KKPVDNYLRIPSNSLLRTILSAIYKDTYDIKKGVGYDFLSVDSKLIRAIVLHVGIE--AG 1947
                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   18.6%;
                                                                              7.7%; Score 95.5; I
25.2%; Pred. No. 12;
tive 33; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   #status predicted <TMl>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          40,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 231.5; DB 2;
Pred. No. 5.4e-12;
0; Mismatches 77;
                                                                                                                                    DB 2;
                                                                                    , 98
                                                                                                                                       Length 2819;
                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    D.; Galisson, F.; Moszer,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            protein
                                                                                    65;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               pathogen
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mycoplasma
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A;Authors: Kaine, B.P.; Borodovsky, M. Klenk, H.P.; Fraser, C.M.; Smith, H.O.; Woese, A;Title: Complete genome sequence of the methanogenic archaeon, Methanococcus jannasch A;Reference number: A64300; MUID:96337999; PMID:8688087
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C; Superfamily: N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C;Species: Methanococcus jannaschii
C;Date: 13-Sep-1996 #sequence_revision 13-Sep-1996 #text_change 04-Mar-2000
C;Accession: B64461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 7
B64461
hypothetical protein MJ1291 - Methanococcus jannaschii
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Cross-references: GB:U67569; GB:L77117; NID:g1591918; PID:g1591928;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Molecule type: DNA
A;Residues: 1-240 <BUL>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Status: preliminary; nucleic acid sequence not shown; translation
                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity 21.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2056 IDALSTSNIVEKILEVFLAEVKKQNPQSKTNDLFASIQEILKSKFDFSQNGLFEVLSIIL 2115
                                               165
                                                                                                                                                    110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           189
                                                                                                                                                                                                       74
                                                                                                                                                                                                                                                    61 NLQVSNBPGNRYNLQLINALVLYVGTQAIAHIHNKGS-----TPSMSTITHSAH 109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       59
                                                                                                                                                                                                                                                                                                                                                         3 LLVILAFYLWQVDMLSEI--NIAPRILTNFTGVMPPQFKKDLDSYLKTRSPVTFLSDLRS 60
                                                                                                                                                                                                                                                                                                                                                                                                           47;
                                               QITRVLLERLIVNRPHPWGLL----ITFIELIKN 194
                                                                                                                                                  MDIFONLAVDLDT-----EGRYLFLNAIANQLRYPNSHTHYFSCTMLYLFAEANTEAIQE 164
                                                                                                                                                                                                 DSRITNNPEER-----FIQTIKLXFINNIDEDLNXNTRIYCLTPNVSWASVNID
                                                                                                                                                                                                                                                                                                         IVIGAAYYAWSNKVPSDTTEKITPTIKSSIGNIIKPIBISTIBTYYFTN-----LDLNG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RSNLQVSNBPGNRYNLQLINALV------LYVGTQAIAHI------HNK-----
--TSNLLDLIDLNCPTESFLLKGNSKTDINYYILINN
                                                                                               -DSSNNLLLDRDENPYNYSGQYVYFNGTV----YYSSMKFYDENGKLFYAAASNGNALN-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           IEELKN 2301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IVALIASDPQTTNLVNKVIDDIFKNHKNYASKANLNBILABFLTTHKNQLLAYLKSIINK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              IBLIKN 194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LNVKVSELHDPSVNVLLSQLKSKMNIEFNNKEKEQLKSILKTSIHLIINSDIPQLVLNNL 2295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LRYPNSHTHYPSCTML--YLFAEANTB---AIQEQITRVLLB--RLIVNRPHPWGLLITF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ----GSTPSMSTITHSAHMDIFQN------LAVDLDTEGRYL--FLNAIANQ 135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     KSNILDSKSINNKEYIQKVKTLFEKLLKNTSVQNFVKDKFIENISKSIPIEQNNKQSLSK 2175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Methanococcus jannaschii hypothetical protein MJ1291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REV1238450-1237728
                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                   7.2%; Score 90; DB 2;
21.7%; Pred. No. 1.4;
                                                                                                                                                                                                                                                                                                                                                                                                           37;
                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                           83; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 240;
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RESULT 8

P89929

P89929

Lypothetical protein SA1333 [imported] - Staphylococcus aureus (strain N315)

C;Species: Staphylococcus aureus

C;Date: 10-May-2001 #sequence_revision 10-May-2001 #text_change 09-Jul-2004

C;Accession: P89929

C;Accession: P89929

R;Kuroda, M.; Ohta, T.; Uchiyama, I.; Baba, T.; Yuzawa, H.; Kobayashi, I.; Cui, L.;

ma, A.; Mizutani-Ui, Y.; Kobayashi, N.; Sawano, T.; Inoue, R.; Kaito, C.; Sekimizu,

C.; Shiba, T.; Hattori, M.; Ogasawara, N.; Hayashi, H.; Hiramatsu, K.

Lancet 357, 1225-1240, 2001

A;Title: Whole genome sequencing of meticillin-resistant Stapylococcus aureus.
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A;Reference number: A897;
A;Accession: F89929
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-251 <KUR>
                                                                                                                                                                                                                                                                                                                                                                                                                                      C;Species: Staphylococcus aureus
C;Date: 10-May-2001 #sequence_revision 10-May-2001 #text_change 09-Jul-2004
C;Accession: G89862
R;Kuroda, M.; Ohta, T.; Uchiyama, I.; Baba, T.; Yuzawa, H.; Kobayashi, I.; Cuima, A.; Mizutani-Ui, Y.; Kobayashi, N.; Sawamo, T.; Inoue, R.; Kaito, C.; Seki C.; Shiba, T.; Hattori, M.; Ogasawara, N.; Hayashi, H.; Hiramatsu, K.
Lancet 357, 1225-1240, 2001
A;Title: Whole genome sequencing of meticillin-resistant Stapylococcus aureus.
A;Reference number: A89758; MUID:21311952; PMID:11418146
A;Accession: G89862
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G89862
NAD-specific glutamate dehydrogenase [imported] -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Cross-references: UNIPROT:Q99TZ1; GB:BA000018; PID:g13701301; PIDN:BAB42595.1; GSPDB:A;Experimental source: strain N315
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                                                                                                                                                                                                                                                                         A;Gene: gudB
C;Superfamily: glutamate dehydrogenase (NAD(P)+)
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                                                                                                                                                                                                                                                                                                                              A;Experimental source: strain N315 C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                A;Cross-references: UNIPROT:Q99VDO; GB:BA000018; PID:g13700762; PIDN:BAB42058.1;
                                                                                                                                                                                                                                                                                                                                                                                   A; Molecule type: DNA
A; Residues: 1-414 < KUR>
                                                                                                                                                                                                                                                                                                                                                                                                                       A; Status: preliminary
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                                                                                                                                                                                                                      Query Match
Best Local S
Matches 55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local S
Matches 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ;Gene:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SA1333
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   232
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           158 NTEAIQEQITRVLLERLIVNRPHPWGLLITFIELIKNPAFKFWNHE-----FVH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   117
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              11 LWQVDMLSBINIAPRILTNFTGVMPPQFKKDLD-----SYLKTRSPVTFLSDLRS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      51;
                                                                                                                                                                                                                                       Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
                                                                                                                                                                                QVDMLSEINIAPRILTNFTGVMPPQFKKDL---DSYLKTRSPVTFLSDLRSNLQVSNEPG
DLGAKIVGISDAYGALHDPNGLDIDYLLDRRDSFGTVTNLFEETISNKELFELDCD--IL
                                                                        FITGKPIVLGGSHGRDRSTALGVVIAIEQAAKRRNMQIEGAKVVIQGFGNAGSFLAKFLY
                                                                                                                                              EVERLSRGYV--RAISQFVGP-----NKDIPAPDVFTNSQI-MAWMMDBYSALDKFNSPG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAPEIEKLFOSVA 219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       N-QLAEDIIYGIKTKQLEINRPK---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AVDLDTEGRYLFLNAIANQLRYPNSH-------THYFSCTMLYLFAEA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NLQVSNEPGNRYNLQLINALVLYVGTQ----AIAHIHNKGSTPSMSTITHSAHMDIFQNL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          I PEQELGKTINVI PCDLNDLKSIQALQPEDNTSFDGFIYSAGLGYPKSISDHSF-----
                                  -----TQAIAHIHNKGS-----TPSMSTITHSAHMDIFQNLAVDLDTEGRYL 127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -YGASKAGFYALMNAL--RLESPNLHIMTVNVGPIDTPFHQKADPSMKYAKKMGEIMLDA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ----SEMIETYQLNLISPNVLYTVLRPYLTSNAHIVGISSQAAFSTQANAAH-----
                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A89758; MUID:21311952; PMID:11418146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 KLFKNKA 251
                                                                                                                                                                                                                                     6.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   6.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  36; Mismatches
                                                                                                                                                                                                                    44; Mismatches 100;
                                                                                                                                                                                                                                       Score 86; DB
Pred. No. 6.5;
                                                                                                            ----NRYNLQLINALVLYVG------
                                                                                                                                                                                                                                                        DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Staphylococcus aureus (strain N315)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    78;
                                                                                                                                                                                                                                                      Length 414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length
                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WMHHALKMYQIAPRFFER
                                                                                                                                                                                                                      96;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    88;
                                                                                                                                                                                                                    Gape
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
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                                                                        231
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                                                                                                                                                                                                                                                                                                                                                                    GSPDB
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A;Gene: SGD:BRB4; MIPS:YDL231c
A;Cross-references: SGD:S0002390
A;Map position: 4L
C;Superfamily: Saccharomyces cerevi
C;Keywords: transmembrane protein
F;148-144,Domain: transmembrane #st
F;232-248/Domain: transmembrane #st
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Reference number: S67778
A;Accession: S67794
A;Molecule type: DNA
A;Residues: 1-1125 <RAS>
A;Cross-references: UNIFROT:007660; EN
A;Experimental source: strain S288C
C;Genetics:
hypothetical protein pXO1-29 - Bacillus anthracis virulence plasmid pXO1 (Species: Bacillus anthracis C;Daecies: Pacyllus anthracis C;Date: 12-Nov-1999 #sequence_revision 12-Nov-1999 #text_change 09-Jul-2 C;Accession: E59094
                                                                            RESULT 11
E59094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          probable membrane protein YDL231c - yeast (Saccharomyces cerevisiae)
NALTernate names: hypothetical protein D0810
C;Species: Saccharomyces cerevisiae
C;Date: 12-Jul-1996 #sequence_revision 12-Jul-1996 #text_change 09-J
C;Accession: S67794
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       submitted to the Protein Sequence A; Reference number: S67778
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              R;Rasmussen,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S67794
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
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                                                                                                                                                                                                                                                                                                        817 IALEPYSKPNRHYNLTTAGIWKSTWVTGLALIIGILVSIPINWIVWPFRARTELRDSMSS
                                                                                                                                                                                                                                                                 104 ITHSAHM-DIFQNLAVDLDTEGRYLFLNA--IANQLRYPNSHTHYFSCTMLYLFAEANTE
                                                                                                                                                                                                                                                                                                                                                                                 758 LICGIVGIFWGWAANQSRHFG-SPYVVCTFAGLIVVPFSINFLVYRNTKSSFTALMCFTI 816
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 128
                                                                                                                                                                                                                                                                                                                                                                                                                                                         49;
                                                                                                                                                                                                                                                                                                                                                                                                                  1 MILLVILAFYLWQVDMLSBINIAPRILTNFTGVMPPQFKKDLDSYLKTRSPVTFLSDLR-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FLNAIANQLRYPNSHTHYFSCTMLYLFAEANTEAIQEQITRVLLERLIVNRP----HPWG
                                                                                                                                                                                         AIQEQITRVLLERLIVN--RPHPWGLLITFIEL--
                                                                                                                                                                                                                              LL--AHLGQSYQTVA-----DRYLYRDADDAPTDLTFAFSHIREVRLTQ-----SLE
                                                                                                                                                                                                                                                                                                                                            SNLQVSNEPGNRYNLQL-----INALVLYVGTQATAHIH-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VTVSYFEWVQNNQGYYWSEEEVNEKLREKLEAAFDTIYELSQNRK 389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LLITFIELIKNPAFKFWNHEFVH--CAPEIEKLFQSVAQCCMGQK 226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VPAAISNQITEDNAHDIKAS-----IVVEAANGPTTPEATRILTERGILLVPDVLASAGG
                                                                                                                                                      AIRELLKKARHEPIIISNFNPEKYASLINSCOFLLSKIIEARISGAFFEIWDODF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Saccharomyces cerevisiae probable membrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                       6.8%;
ilarity 20.9%;
Conservative 3
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No. 33;
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<TM2>
<TM2>
<TM3>
<TM4>
<TM6>
<TM6>
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                                                                                                                                                                                       -- IKNPAFKFWNHEF
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R;Okinaka, R.T.; Cloud, K.; Hampton, O.; Ho J. Bacteriol. 181, 6509-6515, 1999 A;Title: Sequence and organization of pXO1, A;Reference number: A59091; MUID:99445483; A;Accession: E59094

O.; Hoffmaster, A.R.; Hill, K.K.; Keim,

#text_change 09-Jul-2004

, the large Bacillus PMID:10515943

anthracis

plasmid

harbori Koehler

P.,

A;Status: preliminary A;Molecule type: DNA A;Residues: 1-274 <OKI

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, Woo, McClel

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A;Cross-references: EMBL:Z82056; PIDN:CAB04856.1; GSPDB:GN00023; CESP:T26H5.
A;Experimental source: clone T26H5
C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; MOLECUAL 1,278
A; Residues: 1-378 <WIL>
A; Cross-references: UNIPROT:062381;
A; Cross-references: Clone T23F1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Cross-references: UNIPROT:Q9X300; GB:AF065404; NID:g4894216; PIDN:AAD32333.1; PID:g489 A;Experimental source: strain Sterne C;Genetics: A;Gene: px01-29 A;Genome: plasmid C;Superfamily: hypothetical protein px01-29
                                                                                                                                                                                                                                                                                                                                                                                                   A;Status: preliminary; translated A;Molecule type: DNA A;Residues: 1-378 <WI2>
                                                                                                                                                                                                                                                                                                                                                                                                                                                      R;Gardner, A.
submitted to the EMBL Data
A;Reference number: Z20017
A;Accession: T25333
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T25176
hypothetical protein T26H5.5 - Caenorhabditis elegans
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               submitted to the EMBL Data Library,
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Best Local !
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Species: Caenorhabditis elegans;Date: 15-Oct-1999 #sequence_revision;Accession: T25176; T25333
                                                                                                                                                                                                                                                                                                                Map position:
                                                                                                                                                                                                                                                                                                                                  Gene: CESP:T26H5.5
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Best Local
                                                      104 ITHSAHMDIFONLAVDLDT-----
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                                                                                                                     58 LRSNLQVSNEPGNRYNLQLINALVLYVGT----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61 NLOVSNEPGNRYNL-----QLINALVLYVGTQAIAHIHNKGSTPSMSTITHSAHM 110
                                                                                                                                                                                       1 MILLVILAFYLWQVDMLSEINIAPRILTNFTGVMPPQFKKDLDSYLKT---RSPVTFLSD
                                                                                                                                                                                                                                               Similarity
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                                                                                      MEGVLYV-
                                                                                                                                                         IIILSIPKYFRYSIQPFGSLWVPPQNCTDP----PKNYFQIQYTYVETHIFEKSTDPLTG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NITQKNELNYIBDNFFYKFSSIGFFNHBNPMEHQEDISYYHTFTPLFLSPEETKVNLSID 134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DIFQNLAVDLDTEGRYLFLNAIA-----NQLRYPNSHTHYFSCTMLYLFAEANTEAIQEQ 165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NFKVNFKP-NCLNIIEGSFGHGKTÖLFGALLIPLVGEKVVRKHKDSDSPNATISISTTHK 74
                       5---
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VKDIELISHLIMDDTE---ALKMWNDIVNTYLIKYLSEWDKNFIHVSHGLEQILKLIKVV 191
                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     6.7%;
ilarity 17.3%;
Conservative 4
                   PMTISPTISTAPPGILHLVKVIVSEAIGSEGMNLIVDRIAS--LPPLIITI
                                                                                                                                                                                                                          6.7%; Score 83.5; Di
17.6%; Pred. No. 9.6;
rative 45; Mismatches
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                                                                                    --IIPSILLPISTLILIFQLRISRKKSBALRHTSNSGGDRTTKL
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Pred. No. 6.3;
46; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                       from
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                                                  EGRYLPLNAIANQLRYP----
                                                                                                                     ----QAIAHIHNKGSTPSMST
                                                                                                                                                                                                                                                            Length 378;
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                   327
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A98264
                                  A; Map position:
C; Superfamily:
                                                                                                                   A; Molecule type: DNA
A; Residues: 1-350 < KUR>
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R;Wood, D.W.; Setubal, J.C.; Kaul, R.; Monks, D.; Chen, L. erage, G.; Gillet, W.; Grant, C.; Guenthner, D.; Kutyavin, Karp, P.; Romero, P.; Zhang, S. Science 294, 2317-2323, 2001
                                                                                                      A;Cross-references:
                                                                                                                                                       A;Status: preliminary
                                                                                                                                                                         A; Accession: A98264
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A; Residues: 1-350 < KUR>
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   Query Match
                                                                    Gene: AGR_L_2127
                                                                                    Genetics:
                                                                                                                                                                                                                                                                              Accession: A98264
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Best Local Similarity 21.9%;
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                                  erythrocyte band 7 integral membrane
                                                      linear chromosome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                    UNIPROT: Q8U9F6;
   6.7%;
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   Score 83;
                                                                                                      GB: AE007870;
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   ВB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 2;
 2;
Length 350,
                                    protein
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R;Goodner, B.; Hinkle, G.; Gattung, S.; Miller, N.; Blanchard, M.; Qurc A.; Liu, F.; Wollam, C.; Allinger, M.; Doughty, D.; Scott, C.; Lappas, Science 294, 2323-2328, 2001
A;Title: Genome Sequence of the Plant Pathogen and Biotechnology Agent A;Reference number: A97359; MUID:21608551; PMID:11743194
                                                                                                                                                                                                                                                                                                                                                                                      hypothetical 33.7K protein in ushA-tesA intergenic region [imported] - C;Species: Agrobacterium tumefaciens C;Date: 22-Oct-2001 #text_change 09-Jul-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Cross-references: UNIPROT:0809F6; GB:AE008689; PIDN:AAL44582.1; PID:917742200; GSPDB:
A;Experimental source: strain C58 (Dupont)
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A;Title: The Genome of the Natural Genetic Engineer Agrobacterium tumefaciens
A;Reference number: AB2577; MUID:21608550; PMID:11743193
A;Accession: AH3020
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         186 ITFIELIKNPAFKFWNHEFVHCAPEIEKLFQSVAQCCMGQKQAQ-QVMEGTGA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Miller, N.; Blanchard, M.; Qurollo, Doughty, D.; Scott, C.; Lappas, C.;
   PIDN: AAK89635.1;
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PID:g15159532;
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Goldman rkelz, B.

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RESULT 15

H96641

hypothetical protein T25B24.1 [imported] - Arabidopsis thaliana
C;Species: Arabidopsis thaliana (mouse-ear cress)
C;Species: Arabidopsis thaliana (mouse-ear cress)
C;Date: 02-Mar-2001 #sequence_revision 02-Mar-2001 #text_change 09-Jul-2004
C;Accession: H96641
R;Theologis, A.; Ecker, J.R.; Palm, C.J.; Federspiel, N.A.; Kaul, S.; White, O.; Alonso, Chin, C.W.; Chung, M.K.; Conn, L.; Conway, A.B.; Conway, A.R.; Creasy, T.H.; Dewar, K.; ansen, N.P.; Hughes, B.; Huizar, L.
Nature 408, 816-820, 2000
A;Authors: Hunter, J.L.; Jenkins, J.; Johnson-Hopson, C.; Khan, S.; Khaykin, E.; Kim, C.
C.A.; Li, J.H.; Lin, X.; Liu, S.X.; Liu, Z.A.; Luros, J.S.; Maiti, R.; Marziali, Rizzo, M.; Rooney, T.; Rowley, D.; Sakano, H.
Rizzo, M.; Rooney, T.; Schwartz, J.R.; Shinn, P.; Southwick, A.M.; Sun, H.; Tallon, ker, M.; Wu, D.; Yu, G.; Fraser, C.M.; Venter, J.C.; Davis, R.W.
A;Title: Sequence and analysis of C.M.; Venter, J.C.; Davis, R.W.
A;Reference number: A86141; MUID:21016719; PMID:11130712
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A;Gene: T25B24.1
A;Map position: 1
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A;Molecule type: DNA
A;Residues: 1-428 <STO>
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Matches 48
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               7 Match 6.6%; Score 82.5; DB 2; Length 428; Local Similarity 21.2%; Pred. No. 14; Local Similarity 21.2%; Pred. No. 14; Indels 41; Gaps 48; Conservative 33; Mismatches 104; Indels 41; Gaps
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                                                                                                                                                                                                                                                                                                                                                         224 DGSEGQEKLKAKVAHIGTNALL------KMLLVDNFIHADMHPGNILVRPNNTRRGL
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                                                                                                                                                                                                                                                                                                                                                                                                                    69 GNRYNLQLINALVLYVGTQAIAHIHNKGSTPSMSTITHSAHMDIFQ-NLAVDLDTEGRYL 127
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1: uniprot_sprot:*
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Copyright (c) 1993 - 2005 Compugen Ltd.
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Es; PS00307; LECTIN_ R 1 ICE 539 AA; 61829 ICE 539 AA; 94.8 ICH 94.8 ICH 99.6 ICH 99.6	FROM N.A. acenta; J R.; J R.; J ROV-200 (NOV-200 10779; AA IPR00122 IPR00719	SEQUENCE FROM N.A. TISSUES-PLACENTA; MEDLINE-22388257; PubMed-1 Strausberg R.L., Feingold Klausner R.D., Collins F.S. Altschul S.F., Zeeberg B., Hopkins R.F., Jordan H., M. Diatchenko L., Marusina K. Stapleton M., Soares M.B., Brownstein M.J., Usdin T.B. Raha S.S., Loquellano N.A. Bosak S.A., McEwan P.J., M. Richards S., Worley K.C., Villalon D.K., Muzny D.M., Fahey J., Helton E., Kette Whiting M., Madan A., Youn Blakesley R.W., Touchman J. Rodriguez A.C., Grimwood J. Rodriguez A.C., Grimwood J. Rodriguez A.C., Grimwood J. Krzywinski M.I., Skalska U Jones S.J., Marra M.A.; "Generation and initial an and mouse cDNA sequences." Proc. Natl. Acad. Sci. U.S.	PRELIMINARY; (TrEMBLrel. (TrEMBLrel. (TrEMBLrel. otein (Fragme 07; 8 (Human) 8 (Human) Metazoa; Chor utheria; Prin	252 20.3 2141 249 20.0 2140 11.5 18.6 2108 15.5 17.3 2090 97 7.8 524 96 7.7 241 96 7.7 281 96 7.7 281 96 7.6 560 94.5 7.6 560 94.5 7.6 1264 94.5 7.6 1264 94.5 7.6 1264 94.5 7.6 355
LEGUME_BETA; UNKNOWN_1. MW; E59AB5187BB1DBF5 \$; Score 1178; DB 2; \$; Pred. No. 3.7e-94; 1; Mismatches 0;	he EMBL/GenBank/DDBJ 2; in_legB.	2477932; DOI=10.1 B.A., Grouse L.H. B.A., Grouse L.H. S.A., Wagner L., She Buetow K.H., Sch oore T., Max S.I. , Farmer A.A., Ru Bonaldo M.F., Ru CKernan K.J., Mal LKERTAN K.J., Mal Hale S., Garcia A Bodergren B.J., Madan A., Madan A., Man M.F., Shevchenk M.F., Shev	PRT; 539 AA. 17, Created) 26, Last sequence update) 26, Last annotation update) nt). data; Craniata; Vertebrata; nates; Catarrhini; Hominidae;	2 Q75DB4 2 Q6CSRO 1 NOT1 YEAST 2 Q6FYN7 2 Q6FYN7 2 Q6EVH7 1 YC91 METJA QCCVU3 2 Q98QPB 2 Q939A6 2 Q939A6 2 Q939A6 1 SYC METAC 1 SYC METAC 2 QREHNB
CRC64; Length 539; Indels 0; Gaps 0	databases.	., Derge J.G., ., Derge J.G., ., Derge J.G., ., Derge J.G., ., Bhat N.K., ., Wang J., Hsieh P., ., Wang J., Hsieh P., ., Wang J., Hsieh P., ., Bhat N.K., ., Wang J., Hsieh P., ., Bearninci P., Prange C., ., Carninci P., Prange C., ., Carninci P., Prange C., ., Charlinci P., Prange C., ., Charlinci P., Willahy S.J., ., Dek J.A., Gunaratne P.H., ., M., Gay L.J., Hulyk S.W., ., Lu X., Gibbs R.A., ., Lu X., Gibbs R.A., ., Rodrigues S., Sanchez A., ., Rodrigues S., Sanchez A., ., Bouffard G.G., ., Dickson M.C., ., Dickson M.C., ., Dickson M.C., ., Schein J.E., ., Schnerch A., Schein J.E., ., Schnerch A., Schein J.E., ., Schnerch A., Schein J.E., ., School Gull-length human ., Dickson M.C., Schein J.E., ., Schein J	ite) ite) ita; Euteleostomi; dae; Homo.	075db4 ashbya goss 06csr0 kluyveromyc P25655 saccharomyc Q6fvn7 candida gla O6fty2 candida gla O6bvh7 debaryomyce Q58687 methanococc O6cvu3 kluyveromyc Q98qp8 mycoplasma Q339a6 pseudomonas Q7zpm6 plasmodium O8tsp6 methanosarc Q8ehn8 shewanella

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RESULT 3
Q8K3D8
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Matches 225;
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01-OCT-2002
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01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation updat
Hypothetical protein DKFZp434N241 (Fragment)
Name=EKFZp434N241;
Homo sapiens (Human)
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01-MAY-2000
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PROSITE; PS00307; LECTIN_LEGUME_BETA; UNKNOWN_1.
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Pred. No. 8.8e-94;
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RP SEQUENCE FROM N.A.

RC STRAIN=CZECH II; TISSUE=Mammary tumor;

RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;

RX MEDLINE=22388257; PubMed=12.1. Abramen C.M., Schuler G.D., RA Altasher R.D., Collins F.S., Wang J., Halta F., Schuler G.D., Max S.I., Wang J., Halta F., Schuler T.E., RA Altasher R.D., Mullahy S.J., RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J., RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J., RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J., RA Raha S.S., Loquellano N.A., Peters G.J., Malek J.A., Gunaratne P.H., RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W., RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W., RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W., RA Pahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A., Pahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A., RA Mitting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G., RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C., RA RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S., Ra Krzywinski M.I., Skalska U., Smailus D.E., Schmerch A., Schein J.E., "Green E.D., Dickson M.C., Schein J.E., "Green 
Q6ZQ08 PRELIMINARY;
Q6ZQ08;
Q6ZQ04 (TrEMBLrel. 27, C
05-JUL-2004 (TrEMBLrel. 27, L
05-JUL-2004 (TrEMBLrel. 27, L
MKIAA1007 protein (Fragment).
Name=mKIAA1007;
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Pfam; PF04054; Not1; 1.
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Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
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Name=6030411K04Rik;
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TE; PS00307; LE
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A; 126687 MW; 49AD7FF80D44
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Best Local S
Matches 225
                          Strausberg R.L., Peingold B.A., Grouse L.H., Derge J.G.,
Klausner R.D., Collins P.S., Magner L., Shenmen C.M., Schuler G.D.,
Altschul S.P., Zeeberg B., Buetow K.H., Schaefer C.P., Bhat N.K.,
Hopkins R.P., Jordan H., Moore T., Max S.I., Wang J., Hsieh P.,
Diatchenko L., Marusina K., Parmer A.A., Rubin G.M., Hong L.,
Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
Villalon D.K., Murny D.M., Sodergren B.J., Lu X., Gibbs R.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Q8TB53;
01-JUN-2002 (TrEMBLrel.
01-JUN-2002 (TrEMBLrel.
01-MAR-2004 (TrEMBLrel.
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**Prediction of the coding sequences of mouse homologues of KIAA ger

III. the complete nucleotide sequences of 500 mouse KIAA-homologous

CDNAs identified by screening of terminal sequences of CDNA clones

randomly sampled from size-fractionated libraries.";

DNA Res. 10:167-180(2003).

EMBL; AK129258 BAC98068.2;

InterPro; IPR001220; Lectin legB.

InterPro; IPR001220; Lectin legB.
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Name=KIAA1007;
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Mammalia; Eutheria;
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Mammalia; Butheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
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MBLrel. 21,
MBLrel. 26,
1 (Fragment).
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Rodentia;
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Primates;
       Ketteman M.,
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Pred. No. 1.
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Naggase T., Ishikawa K., Suyama M., Kikuno R., Hirosawa M.,
Niyajima N., Tanaka A., Kotani H., Nomura N., Ohara O.;
"Prediction of the coding sequences of unidentified human
The complete sequences of 100 new cDNA clones from brain w
for large proteins in vitro.";
DNA Res. 6:63-70(1999).
REMBL, AB023224; BAA76851.2; -
REMBL, AB023224; -
REMBL, 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
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Q9Y2L0;
01-NOV-1999 (TrEMBLrel. 1
01-OCT-2002 (TrEMBLrel. 2
01-MAR-2004 (TrEMBLrel. 2
KIAA1007 protein (Fragmen
   PROSITE; PS00307; LECTIN_LEGUME_BETA; UNKNOWN_1.

NON_TER 1 1
SEQUENCE 1835 AA; 206328 MW; BD9B12CE57A7117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens (Human).
Homo sapiens (Human).
Transition (Homan).
Homo sapiens (Homan) (Homan).
Homo sapiens (Homan) (Ho
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Submitted (MAR-2002) to the EMBL/
EMBL; BC024317; AAH24317.1; -.
InterPro; IPR001220; Lectin_legB.
InterPro; IPR007196; Not1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        KIAA1007 protein
Name=KIAA1007;
                                                                                                                                                                                                                                                                                                                                                                                                                                                        TISSUB=Brain;
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PROSITE; PS00307; LECTIN_LEGUME_BETA; UNKNOWN_1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID=9606;
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99.6%;
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Pred. No. 1.4e
1; Mismatches
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      BD9B12CE57A71175
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      CRC64;
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human genes.
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A., Schein J.B.,
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Best Local S
Matches 225
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Best Local
                                                                                                                                                                                                                                             The German cDNA Consortium;
POUSTRA A, Albert R, Moosmayer P, Schupp I, Wellenrev
Mewes H.W., Weil B., Amid C., Osanger A., Fobo G., Han M.
Submitted (AUG-2004) to the EMBL/GenBank/DDBJ databases.
EMBL; CR749237; CAH18093.1; -.
InterPro; IPR007126; Jectin_legB.
InterPro; IPR007196; Not1.
PEAsm; PF04054; Not1; 1.
PROSITE; PS003037; LECTIN_LEGUME_BETA; UNKNOWN_1.
                                                                                                                                                                                                                                                                                                                                                                                            25-OCT-2004 (TrEMBLrel. 28, Created)
25-OCT-2004 (TrEMBLrel. 28, Last sequence update)
25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
Hypothetical protein DKFZp686E0722.
Name=DKFZp686E0722;
Homo sapiencin.
 Q8C0H2
                                                                                                                                                                                                                                    Hypothetical SEQUENCE 2
                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM
TISSUE=Testis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q68DX7
                                                                                                                                                                                                                                                                                                                                                               NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa;
Mammalia; Eutheria;
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                                                             KNPAFKFWNHEFVHCAPEIEKLFQSVAQCCMGQKQAQQVMEGTGAS
                                                                                                                      NLQLINALVLYVGTQAIAHIHNKGSTPSMSTITHSAHMDIFQNLAVDLDTEGRYLFLNAI
                                                                                                                                NLQLINALVLYVGTQAIAHIHNKGSTFSMSTITHSAHMDIFQNLAVDLDTEGRYLFLNAI
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                                                                                                                                                                                                                                   l protein.
2127 AA;
                                                                                                                                                                                                Conservative
 PRELIMINARY;
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Pred.
 PRT;
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                                                                                                                                                                                               Mismatches
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                                                                                                                                                                                                                                   AB5D1992D6944037 CRC64;
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No. 1.6e-93
381
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SEQUENCE FROM N.A.
STRAIN=C57BL/6J; TISSUE=Testis;
The FANTOM Consortium,
                                                                                                                                                                                                                                                                                                                                                                                                                               Nature
[3]
                                                                                                                                                                                                                                                             SEQUENCE FROM
                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                  Nature 420:563-573(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                        "Functional annotation of Nature 409:685-690(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
STRAIN=C57BL/6J; TISSUE=Testis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          RIKEN FANTOM Consortium;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NCBI_TaxID=10090
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Name=6030411K04Rik;
                                                                                                                                                                                                                                                                               Res. 10:1617-1630(2000).
                                                                                                                                                                                                                                                            N.A.
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SEQUENCE FROM N.A.

(C STRAIN-C57BL/61) TISSUE-Testis;

(C STRAIN-C57BL/61) TISSUE-Testis;

(C STRAIN-C57BL/61) TISSUE-Testis;

(A Adachi J., Alzawa K., Akimura T., Hara A., Hashizume W.,

(A Hayashida K., Furuno M., Hanagaki T., Hara A., Hashizume W.,

(A Hayashida K., Hayatsu N., Hiramcto K., Hiracka T., Hirozane T.,

(A Hayashida K., Hayatsu N., Ishi Y., Itoh M., Kagawa I., Kasukawa T.,

(A Katoh H., Kawai J., Kojima Y., Kondo S., Konno H., Kouda M., Koya S.,

(A Kurihara C., Matsuyama T., Miyazaki A., Murata M., Nakamura M.,

(A Kurihara C., Matsuyama T., Miyazaki A., Murata M., Nakamura M.,

(A Nishi K., Nomura K., Numazaki R., Ohno M., Ohsato N., Okazaki Y.,

(A Saito R., Saitoh H., Sakai C., Sakai K., Sakazume N., Sano H.,

(A Sasaki D., Shibata K., Shinagawa A., Shiraki T., Sogabe Y., Tagami M.

(A Sasaki D., Shibata K., Shinagawa A., Shiraki T., Sogabe Y., Tanaka T.,

(A Sasaki D., Takahashi F., Takaku-Akahira S., Takeda Y., Tanaka T.,

(A Somaru A., Toya T., Yasunishi A., Muramatsu M., Hayashizaki Y.;

(A Submitted (JUL-2001) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRAIN=C57BL/6J; TISSUB=Testis;

MEDLINS=20530913; PubMed=11076861; DOI=10.1101/gr.152600;

Shibata K., Itoh M., Aizawa K., Nagaoka S., Sasaki N., Carninci P.,

Shibata K., Itoh M., Aizawa K., Nagaoka S., Sasaki N., Carninci P.,

Konno H., Akiyama J., Nishi K., Kitsunai T., Tashiro H., Itoh M.,

Sumi N., Fihii Y., Nakamura S., Hazama M., Nishine T., Harada A.,

Yamamoto R., Matsumoto H., Sakaguchi S., Ikegami T., Kashiwagi K.,

Pujiwake S., Inoue K., Togawa Y., Izawa M., Ohara E., Watshiki M.,

Yoneda Y., Ishikawa T., Ozawa K., Tanaka T., Matsuura S., Kawai J.,

Yokazaki Y., Muramatsu M., Inoue Y., Kira A., Hayashizaki Y.;

"RIKEN integrated sequence analysis (RISA) system-384-format

sequencing pipeline with 384 multicapillary sequencer.";

Genome Res. 10:1757-1771(2000).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   the RIKEN Genome Exploration Research Group Phase I & II "Analysis of the mouse transcriptome based on functional 60,770 full-length cDNAs.";
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STRAIN=C57BL/6J; TISSUB=Testis;
MEDLINE=21085660; PubMed=11217851; DOI=10.1038/35055500;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Carminci P., Hayashizaki Y.; "High-efficiency full-length cDNA cloning."; Meth. Enzymol. 303:19-44(1999).
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01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last sequence update)
Mus musculus 13 days embryo male testis CDNA, RIKEN full-length
enriched library, clone:6030411K04 product:ADRENAL GLAND PROTEII
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
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                                                                            , Sano H.,
rabe Y., Tagami M
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Best Local Similarity
Matches 171; Conserv
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Q7PW82;
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Submitted (APR-2003) to the EMBL/GenBank/DDBJ databases.
-!- CAUTION: The sequence shown here is derived from an EMBL/GenBank/DDBJ whole genome shotgun (WGS) entry v
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Anopheles gambiae str. PEST.
Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
Neoptera; Endopterygota; Diptera; Nematocera; Culicoidea; Anopheles.
NCBI_TaxID=180454;
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InterPro; IPR001220; Lectin_legB.
InterPro; IPR007196; Not1.
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01-MAR-2004 (TrEMBLrel. 26, Last
01-MAR-2004 (TrEMBLrel. 26, Last
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InterPro; IPR001220; Lectin_legB.
InterPro; IPR007196; Not1.
Pfam; PF04054; Not1; 1.
PROSITE; PS00307; LECTIN LEGUME BETA; UNKNOWN 1.
SEQUENCE 381 AA; 43877 MW; ZAALC9F65AC8FA52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRAIN-PEST;
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Pred. No. 9.7e-70;
27; Mismatches 23;
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Pred. No. 1e-9:
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annotation update)
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Best Local Similarity
Matches 165; Conserv
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Q8IH39;
Q8IH39;
CQ8IH39;
CQ8H39;
CQ8H39;
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CQ8H39;
CQ8H39;
CQ8H394;
CQ8H39
Q9V591 PRELIMINARY; PRT; 2170 AA.
Q9V591;
01-MAY-2000 (TrEMBLrel. 13, Created)
01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
01-MAR-2004 (TrEMBLrel. 13, Created)
01-MAR-2004 (TrEMBLrel. 13, Last sequence update)
01-MAR-2000 (TrEMBLrel. 13, Created)
01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
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PROSITE; PS00290; IG MHC; UNKNOWN 1.
PROSITE; PS00307; LECTIN_LEGUME_BETA;
NON_TER 1 1
SEQUENCE 669 AA; 76242 Mm.
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InterPro; IPR003006; Ig_MHC.
InterPro; IPR001202; Lectin_legB.
InterPro; IPR007196; Not1.
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Pred. No. 1.9e-67;
0; Mismatches 29
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RA Amanatides P.C., Cebrarer S.E., Holt K.A., Evans C.A., Gocayne V.D.,
Amanatides P.G., Scherer S.E., Li P.W., Hoskins R.A., Galle R.F.,
RA George R.A., Lewis S.E., Richards S., Abburner M., Henderson S.N.,
RA Sutton G.G., Wortman J.R., Yandell M.D., Zhang Q., Chen L.X.,
RA Brandon R.C., Rogers Y.H., Blazej R.G., Champe M., Pfeiffer B.D.,
RA Brandon R.C., Rogers Y.H., Blazej R.G., Champe M., Pfeiffer B.D.,
RA Brandon R.C., Rogers Y.H., Blazej R.G., Champe M., Pfeiffer B.D.,
RA Brandon R.C., Basu A., Baxerdale J., Bayraktaroglu L., Beasley E.M.,
RA Borkova D., Botchan M.R., Bouck J., Brokatein P., Beotshev S.,
RA Borkova D., Botchan M.R., Bouck J., Brokatein P., Brottler P.,
RA Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
RA Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
RA Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
RA Cherry J.M., Cawley S., Dahlke C., Bernard S., Pleischmann W.,
RA Glodek A., Gong F., Gorrell J.H., Gu Z., Genter S., Pleischmann W.,
RA Glodek A., Gong F., Gorrell J.H., Gu Z., Genn P., Harris M.,
RA Harris N.L., Harvey D., Heiman T.J., Hernandez J.R., Houck J.,
RA Harris N.L., Harvey D., Heiman T.J., Hernandez J.R., Houck J.,
RA Harris N.L., Harvey D., Keatt C., Kravitz S., Kulp D., Lai Z.,
RA Harris N.L., Harvey D., Kraft C., Kravitz S., Kulp D., Lai Z.,
RA Harris N.L., Harvey D., Mobarry C., Morris J., Moshrefi A.,
RA Merkulov G., Milshina N.V., Mobarry C., Morris J., Moshrefi A.,
RA Merkulov G., Milshina N.V., Mobarry C., Morris J., Moshrefi A.,
RA Melson D.R., Nelson K.A., Nixon K., Nusskern D.R., Paclab J.M.,
RA Hallams R., Tector C., Turner R., Venter E., Wang A.H., Wang X.,
RA Wilskas R., Tector C., Turner R., Venter E., Wang A.H.,
Rang Z.Y., Wassarman D.A., Weinstock G.M., Weissenbach J.,
RA Weinston S.M., Woodaget, Worley K.C., Wu D., Yang S., Yao Q.A., Ye J.,
RA Hallams S.M., Hoodaget, Worley K.C., Wu D., Yang S., Yao Q.A., Ye J.,
RA Jahan S., Sandhan G., Zhao G., Zhao Q., Zheng L.,
Ra Jahan S., Sandhan G., Shong W., Zhou X., Zhu X., 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE-22426065; PubMed=12537568; Celniker S. E., Wheeler D.A., Krommiller B., Carlson J.W., Halper Celniker S. E., Wheeler D.A., Krommiller B., Frise B., Hodgson A., Patel S., Adams M., Champe M., Dugan S.P., Frise B., Hodgson A., George R.A., Hoskins R.A., Laverty T., Muzny D.M., Nelson C.R., Pacleb J.M., Park S., Feiffer B.D., Richards S., Sodergren E.J. Svirskas R., Tabor P.E., Wan K., Stapleton M., Sutton G.G., Vent Weinstock G., Scherer S.E., Myers E.W., Gibbs R.A., Rubin G.M., "Finishing a whole-genome shotgun: Release 3 of the Drosophila melanogaster euchromatic genome sequence."; Genome Biol. 3:RESEARCH0079-RESEARCH0079(2002).
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MEDLINE=22426069; PubMed=12537572;
Misra S., Crosby M.A., Mungall C.J., Matthews B.B., Campbell K.S.,
Hradecky P., Huang Y., Kaminker J.S., Millburn G.H., Prochnik S.E.,
Smith C.D., Tupy J.L., Whitfied E.J., Bayraktaroglu L., Berman B.P.
Bettencourt B.R., Celniker S.E., de Grey A.D., Drysdale R.A.,
Harris N.L., Richter J., Russo S., Schroeder A.J., Shu S.Q.,
Stapleton M., Yamada C., Ashburner M., Gelbart W.M., Rubin G.M.,
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NCBI_TaxID=7227;
[1]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE=22426070; PubMed=12537573;
Kaminker J.S., Bergman C.M., Kronmiller B., C.
Patel S., Frise E., Wheeler D.A., Lewis S.E.,
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                                                                                                                                                                                                                                                                                                                                                                                                           genomics
                                                                                                                                                                                                                                                                                                                                                                     perspective.";
1. 3:RESEARCH0084-RESEARCH0084(2002).
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                                                                           Berman B.P.,
R.A.,
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Best Local S
Matches 165
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01-OCT-2002
01-OCT-2002
01-MAR-2004
MEDINE-20196006; PubMed-10731132; DOI=10.1126/science.287.5461.2185; Adams M.D., Celniker S.B., Holt R.A., Evans C.A., Gocayne J.D., Amanatides P.G., Scherer S.E., Li P.W., Hoskins R.A., Galle R.F., George R.A., Lewis S.B., Richards S., Ashburner M., Henderson S.N., Sutton G.G., Wortman J.R., Yandell M.D., Zhang Q., Chen L.X., Sutton R.C., Rogers Y.H., Blazej R.G., Champe M., Pfeiffer B.D., Brandon R.C., Royle S.H., Blazej R.G., Nelson C.R., Gabor G.L., Abril J.P., Agbayani A., An H.J., Andrews-Pfannkoch C., Baldwin D., Abril J.P., Agbayani A., An H.J., Andrews-Pfannkoch C., Baldwin D., Ballew R.M., Basu A., Banchale J., Bayraktaroglu L., Beasley E.M., Beeson K.Y., Benos P.V., Berman B.P., Bhandari D., Bolshakov S., Borkova D., Botchan M.R., Bouck J., Brokstein P., Brottier P., Burtis K.C., Busam D.A., Butler H., Cadieu E., Center A., Chandra I.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Drosophila melanogaster (Fruit fly).

Bukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygo
Eukaryota; Endopterygota; Diptera; Brachycera; Muscomorpha;
Ephydroidea; Drosophilidae; Drosophila.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PlyBase; FBgn0033424; CG1884.
InterPro; IPR000577; FGGY kin.
InterPro; IPR003006; Ig MHC.
InterPro; IPR001220; Lectin legB.
InterPro; IPR007196; Not1.
Pfam; PF04054; Not1; 1.
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PROSITE; PS00290; IG MHC; UNKNOWN 1.
PROSITE; PS00307; LECTIN LECUME BETA; UNKNOWN SEQUENCE 2170 AA; 243979 MW; A9A259D260D36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
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Pred. No. 7.9e
30; Mismatches
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RA Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,

RA de Pablos B., Delcher A., Deng Z., Mays A.D., Dew I., Dietz S.M.,

RA Dodson K., Doup L.E., Downes M., Dugan-Rocha S., Dunkov B.C., Dunn P.,

RA Durbin K.J., Evangelista C.C., Ferraz C., Ferriera S., Fleischmann W.,

RA Posler C., Gabrielian A.B., Garg N.S., Gelbart W.M., Glasser K.,

RA Glodek A., Gong F., Gorrell J.H., Gu Z., Guan P., Harris M.,

RA Harris N.L., Harvey D., Heiman T.J., Hernandez J.R., Houck J.,

RA Hostin D., Houston K.A., Howland T.J., Wei M.H., Ibegwam C.,

RA Lill M., Kalush F., Karpen G.H., Ke Z., Kennison J.A., Ketchum K.A.,

RA Lill X., Mattei B., McIntosh T.C., McLeod M.P., McPherson D.,

RA Lisko P., Lei Y., Levitsky A.A., Li J., Li Z., Liang Y., Lin X.,

RA Merkulov G., Milahina N.V., Mobarry C., Morris J., Moshrefi A.,

RA Melson D.R., Nelson K.A., Nixon K., Nusskern D.R., Pacleb J.M.,

RA Nelson D.R., Pittman G.S., Pan S., Pollard J., Put V., Reese M.G.,

RA Reinert K., Remington K., Saunders R.D., Scheeler F., Shen H.,

RA Spier E., Spradling A.C., Stapleton M., Skupski M.P., Smith T.,

RA Syler E., Spradling A.C., Stapleton M., Skupski M.P., Smith T.,

RA Wang Z.Y., Wassarman D.A., Weinstcok G.M., Weissenbach J.,

Wang X., Wassarman D.A., Weinstcok G.M., Weissenbach J.,

RA Yeh R.F., Zaveri J.S., Zhan M., Zhang G., Zhao Q., Zheng L.,

"The genome sequence of Drosophila melanogaster.",

RA Science 287:2185-2195(2000).
                                                                                                                                                                                                                                                                                     MEDLINB-22426069; PubMed-12537572;
Misra S., Crosby M.A., Mungall C.J., Matthews B.B., Campbell K.S.,
Misra S., Crosby M.A., Mungall C.J., Millburn G.H., Prochnik S.B.,
Smith C.D., Tupy J.L., Whitfied B.J., Bayraktaroglu L., Berman B.P.
Bettencourt B.R., Celniker S.B., de Grey A.D., Drysdale R.A.,
Harris N.L., Richter J., Russo S., Schroeder A.J., Shu S.Q.,
Stapleton M., Yamada C., Ashburner M., Gelbart W.M., Rubin G.M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (3)
SEQUENCE FROM N.A.
MEDLINE=22426070; PubMed=12537573;
Kaminker J.S., Bergman C.M., Kronmiller
Kaminker J.S., Wheeler D.A., Lewis
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Genome Biol. 3:RBSEARCH0079-RESEARCH0079(2002).
         EMBL; AB003833; AAM71069.2; -
FlyBase; Eggn0033424; CG1894.
InterPro; IPR000577; FGGY kin
                                                                                                                                                                   SEQUENCE FlyBase,
                                                                                                                                                                                                                                                                                                                                                                                                                                                          "The transposable elements of the Drosophila m
a genomics perspective.";
Genome Biol. 3:RESEARCH0084-RESEARCH0084(2002)
                                                                                           FlyBase;
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Q8BXB2;
                                                                                                                                                                                                                           The FANTOM Consortium,
the RIKEN Genome Exploration Research
"Analysis of the mouse transcriptome k
60,770 full-length cDNAs.";
Nature 420:563-573(2002).
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STRAIN=C57BL/6J; TISSUE-Head;
MEDLINE=21085660; PubMed=11217851;
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InterPro; IPR007196; Not1.
Pfam; PP04054; Not1; 1.
PROSITE; PS00445; RGGY KINASES 2; UNKNOWN_1.
PROSITE; PS00290; IG_MHC; UNKNOWN 1.
PROSITE; PS00307; LECTIN_LEGUME_BETA; UNKNOWN_PROSITE; PS00307; LECTIN_GROWN_ABENOSITE; LECTIN_GROWN_ABENOSITE; LECTIN_GROWN_ABENOSITE; LECTIN_GROWN_ABENOSITE; LECTIN_GROWN_ABENOSITE; LECTIN_GROWN_ABENOSITE; LECTIN_GROWN_ABENOSIT
Carninci P., Shibata Y., Hayatsu N., Sugahara Y
Konno H., Okazaki Y., Muramatsu M., Hayashizaki
"Normalization and subtraction of cap-trapper-s
                                                                                           SEQUENCE FROM N.A.
STRAIN=C57BL/6J; TISSUE=Head;
MEDLINE=20499374; PubMed=11042159;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       runctional annotation of Nature 409:685-690(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Carminci P., Hayashizaki Y.; "High-efficiency full-length cDNA cloning Meth. Enzymol. 303:19-44(1999).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mus musculus (Mouse)
Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
STRAIN=C57BL/6J; TISSUE=Head;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRAIN=C57BL/6J; TISSUE=Head; MEDLINE=99279253; PubMed=10349636;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-MAR-2003
01-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RIKEN FANTOM Consortium;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Name=6030411K04R1k;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-MAR-2004
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8 (Mouse).

Metazoa; Chordata; C

Charia; Rodentia; f
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(TrEMBLrel. 23, Last sequence update)
(TrEMBLrel. 26, Last annotation update)
s 16 days embryo head cDNA, RIKEN full-length enriched
ne:Cl30038F19 product:ADRENAL GLAND PROTEIN AD-005
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Pred. No. 7.9e-67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Craniata; Vert
Sciurognathi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
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4BE00B684EE79CCF CRC64;
                                                                                           DOI=10.1101/gr.145100;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DOI=10.1038/35055500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DOI=10.1016/S0076-6879(99)03004-9;
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on func
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                                                                                                                                                                                                                                                                                            nase I & II
functional
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                                                            Shibata
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                                                            <u>×</u>;
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Best Local S
Matches 154
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STRAIN-C57BL/6J; TISSUE=Head;

MEDLINE=20530913; PubMed=11076861; DOI=10.1101/gr.152600;

MEDLINE=20530913; PubMed=11076861; DOI=10.1101/gr.152600;

Shibata K., Itoh M., Aizawa K., Nagaoka S., Sasaki N., Carninci P.,

Konno H., Akiyama J., Nishi K., Kitsunai T., Tashiro H., Itoh M.,

Sumi N., Ishii Y., Nakamura S., Hatsuna M., Nishine T., Harada A.,

Yamamoto R., Matsunoto H., Sakaguchi S., Ikegami T., Kashiwagi K.,

Pujiwake S., Inoue K., Togawa Y., Izawa M., Ohara B., Watahiki M.,

Yoneda Y., Ishikawa T., Ozawa K., Tanaka T., Matsuura S., Kawai J.,

Okazaki Y., Muramatsu M., Inoue Y., Kira A., Hayashizaki Y.;

"RIKEN integrated sequence analysis (RISA) system=384-format

sequencing pipeline with 384 multicapillary sequencer.";

Genome Res. 10:1757-1771(2000).
                                                                                                                                                                                                                                             020937,
01-NOV-1996 (TrEMBLrel. 01, Created)
01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
Not-1ike (Yeast ccr4/not complex component) protein
  SEQUENCE FROM N.A.
STRAIN=Bristol N2;
MEDLINE=99069613;
                                                                                                                                                                                                                                                                                                                                                                                         Q20937
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Genome Res. 10:1617-1630(2000).
                                                                                                                                      Eukaryota; Metazoa; Nemat
Rhabditidae; Peloderinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MGD; MGI:2442402; 6030411K04K1K.
InterPro; IPR001220; Lectin_legB.
InterPro; IPR0077156; Not1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
STRAIN=C57BL/6J; TISSUE=Head;
                                                                                                         NCBI_TaxID=6239;
                                                                                                                                                                                               Caenorhabditis elegans.
                                                                                                                                                                                                                         Name=ntl-1; ORFNames=F57B9.2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PS00307; LECTIN LEGUME BETA; UNKNOWN 1.
424 AA; 48770 MW; 615A08FD6C1FE003 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ANQLRYPNSHTHYPSCTMLYLPAEANTEAIQEQITR 168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NLQLINALVLYVGTQAIAHIHNKGSTPSMSTITHSAHMDIFQNLAVDLDTEGRYLFLNAI
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                                                                                                                                                                                                                                                                                                                                                                                            PRELIMINARY;
        PubMed=9851916;
                                                                                                                                         Nematoda; Chromadorea; rinae; Caenorhabditis.
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Pred. No. 8.5e-61;
2; Mismatches 0
                                                                                                                                                                                                                                                                                                                                                                                            PRT;
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Tanaka T.,
                                                                                                                                                                     Rhabditoidea
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  RESULT 15
Q94LQ
Q94LQ
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Best Local :
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                                                                                                                                                                                                                                                              Q94LQ9 PRELIMINARY; PRT; Z364 AA.
Q94LQ9; Q7XC99;
Q1-DEC-2001 (TrEMBLrel. 19, Created)
O1-DEC-2001 (TrEMBLrel. 19, Last sequence update)
O5-JUL-2004 (TrEMBLrel. 27, Last annotation updat
                                                                                                         Oryza sativa (japonica cultivar-group).
Eukaryota; Viridiplantae; Streptophyta; Bi
Spermatophyta; Magnoliophyta; Liliopsida;
Ehrhartoideae; Oryzeae; Oryza.
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Submitted
                                                                                                                                                                                                                      Putative transcription regulatory ORFNames=OSJNBa0010C11.3;
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Submitted (SEP-2004) to the
EMBL; U13876; AAA21168.1;
PIR; G88493; G88493.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "Genome sequence of the nematode C. elegans: a platform for investigating biology. The C. elegans Sequencing Consortium."; Science 282:2012-2018(1998).
SEQUENCE FROM N.A.
Buell C.R., Yuan Q.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WoxmBase; WBGene00003824; ntl-1.
WoxmPep; F5789.2; CE01337.
InterPro; IPR001547; Glyco_hydro_5.
InterPro; IPR007196; Notl.
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                                                                             NCBI_TaxID=39947;
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TE; PS00659; GLYCOSYL HYDROL F5; UNKNOWN 1.
NCE 2500 AA; 278990 MW; 055808606FF56975 CRC64;
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Pred. No. 3
     Moffat K.S.,
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a; Poales; Poaceae;
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     Hill J.N.,
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                                                                                                                                                                     Tracheophyta;
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        Gansberger K.,
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                                                                                                                                                                                                                                              Gramene; Q7XC99; -.
Gramene; Q94LQ9; -.
Gramene; Q94LQ9; -.
InterPro, IPR007196; Not1.
Pfam; PF04054; Not1; 1.
SEQUENCE 2363 AA; 262004 MW; 24B523628FCA875C CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Brenner M., Burgess S., Hance M., Shvartsbeyn M., Tsitrin T., Riggs F., Hsiao J., Zismann V., Blunt S., Pai G., Vanaken S.E., Utterback T.R., Feldblyum T.V., Quackenbush J., Salzberg S.L., White O., Fraser C.M.; Submitted (MAY-2000) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.

The Rice Chromosome 10 Sequencing Consortium;
"In-depth view of structure, activity, and evolution of rice chromosome 10.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
Buell R.;
Submitted (APR-2002) to the EMBL/GenBank/DDBJ databases.
[3]
                                                                                                                                                                                                                                                                                                                      Buell C.R., Wing R.A., McCombie W.R., Messing J., Yuan Q.; Submitted (MAY-2003) to the EMBL/GenBank/DDBJ databases. EMBL, AC063900; AAK55455.1; -. EMBL, AC06300; AAK554575.1; -.
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Query Query Query Atch Length DB ID Description Aab20091 Human hyd 1738 100.0 326 4 AAM93915 1733 99.7 326 8 ADL32038 1725 99.3 339 2 AAY29331 1725 99.3 339 5 ABB55766 1725 99.3 339 5 ABB55767 1725 99.3 339 5 ABB55767 1725 99.3 339 6 ADL32022 1725 99.3 32 6 ABM93907 1726 1727 1728 1729 1727 1728 1729 1729 1728 1729 17	25	24	23	22	21	20	19	10	17	16	15	14	13	12	11	10	9	8	7	6	տ	4	ω	N	ь	Result
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ID Description AAB20091 Aab20091 Human AAB20091 Aam93915 Human AAM93915 Aam93915 Human ADL32038 Aay29331 Human AAU39057 Aaw939057 Human ABB55766 Human ABB55766 Human ABB93977 Aam93907 Human ABB12022 Aman ABJ19723 Aam93022 Human ABJ19723 Aam93027 Human ABJ19723 Ada98352 Human ABB98907 Aam93674 Human ABB9807 Human AAB51635 Aab59574 Human AAB93674 Ada98352 Human ABM93674 Ada98352 Human ABM93674 Ada98352 Human ABM93674 Ada98352 Human ABM93677 Ada98352 Human ABM93677 Ada98353 Human ABM93674 Ada983674 Human ABM93677 Ada98359 Human ABM93677 Ada98359 Human ABM936771 Aab959771 Human ABM936710 Membrg ABM936710 Aay66710 Membrg AAB65233 Human AAB65233 ABU58048 Human AAB65233 Human AAB65233 ABU58048 Human	285	285	285	285	285	359	359	357	304	343	343	330	324	323	323	323	323	275	275	339	339	339	326	326	326	Length
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man	Abu58048	Aab65233	Aab94851	Aau12395	Aay66710	Abp75771	Abp75926	Abb97772	Ada14417	Ad131529	Aam93674	Abb89807	Aab51635	Ada98352	Abr01267	Abp99774	Abj 19723	Ad132022	Aam93907	Abb55766	Aau39057	Aay29331	Ad132038	Aam93915		Descript
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Abu88585	Abu81646	Abu10894	Abu92188	Abu67069	Abu59422	Abu92357	Abu58979	Abo25064	Abo25970	Abu59273	Abu59874	Abu66793	Abu72524	Abu81093	Abu13939	Abu60557	Abo17839	Abu82638	DYTCONWY
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ALIGNMENTS

AAB20091 standard; protein; 326 ₿

AAB20091;

23-APR-2001 (first entry)

Human hydrophobic domain-containing protein HP03371.

Human; hydrophobic domain; antiinflammatory; immunosuppressive; immunostimulant; vulnerary; antiulcer; haemostatic; cytostatic; hepatotropic; thrombolytic; antitumour; antiviral; antibacterial; antifungal; gene therapy; diagnosis; membrane protein.

Homo sapiens.

WO200100824-A2.

04-JAN-2001.

16-JUN-2000; 2000WO-JP003944

24-JUN-1999; 99JP-00178065

(SAGA) (PROT-) SAGAMI CHEM RES CENT PROTEGENE INC.

Kato S, Kimura T;

WPI; 2001-123008/13.

N-PSDB; AAB20091.

New proteins with hydrophobic domains, useful for treating autoimmune diseases, inflammatory diseases, wounds, burns, incisions and ulcers.

Claim 1; Page 89-90; 126pp; English.

The present sequence is that of a novel human protein having 2 putative transmembrane domains. It is predicted from cDNA clone HP03371 (see AAF30022), isolated from a lymphoma cell line U937 cDNA library. The predicted 39 kDa protein shows 71.5% homology to mouse protein GSG1. The invention provides human proteins (see AAB20089-96) having hydrophobic domains indicative of secretory signals or membrane domains, and nucleic acids (see AAF30020-27) encoding them. These are expected to have cell proliferation, cell differentiation, immunostimulant or immunosuppressor, haematopoiesis regulating, tissue growth, activin, inhibin, chemotactic, chemokinetic, haemostatic, thrombolytic, receptor/ligand,

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Best Local Similarity
Matches 326; Conserv
                                                                                                                                          08-JUL-1999;
11-JAN-2000;
02-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           antiinflammatory or antitumour activities (no evidence provided). Expression vectors, eukaryotic host cells and antibodies are also provided. The secreted or membrane proteins of the invention can be used as pharmaceuticals or antigens for preparing antibodies. Cells expressing them are utilized for detection of corresponding receptors or ligands, and in candidate drug screening
                                                                                                                                                                                                                                                                                                                                 06-NOV-2001
                                               WPI; 2001-524255/58.
N-PSDB; AAK94877.
                                                                                                                                                                                                                                                                                                          Human polypeptide,
                                                                                                                                                                                                                                                                                                                                                                              AAM93915 standard; protein; 326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 326 AA;
                       830 Primers useful for synthesizing
                                                                                   Wakamatsu
                                                                                                                                                                                        07-JUL-2000; 2000EP-00114089.
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                                                                                                                    (HELI-) HELIX RES INST
             genetic manipulation
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                                                                                              Nishikawa T,
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2000JP-00118774.
2000JP-00183765.
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                                                                                 Sugiyama
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100.0%; Pred.
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a T, Nagai
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                                                                                Hayashi K,
K, Kojima
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No. 1.7e-175;
                       full length cDNA clones
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S, Otsuki
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T, Koga
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Best Local Similarity
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                               08-JUL-1999;
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02-MAY-2000;
07-JUL-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The invention relates to primers for synthesising full length cDNA clones. 830 cDNA molecules encoding a human protein have been isolated and nucleotide sequences of 5'- and 3'-ends of the cDNA molecules have been determined. Primers for synthesising the full length cDNA are useful for clarifying the function of the protein encoded by the cDNA. The full-length clones were obtained by construction of full length enriched cDNA libraries that were synthesised by the oligo-capping method. The primers enable the production of the full length cDNA easily without any special methods. The present sequence is a polypeptide encoded by a full length human cDNA of the invention. Note: The sequence data for this pattent did not form part of the printed specification, but was obtained in CD-ROM format directly from EPO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim
                                                                                                            07-JUL-2000; 2003EP-00025638.
                                                                                                                                                                           EP1396543-A2
                                                                                                                                                                                                                                      oligo-capping
                                                                                                                                                                                                                                                     human; medicine; signal transduction; glycoprotein; transcription;
                                                                                                                                                                                                                                                                                    Human protein encoded by a full length cDNA clone SeqID 4071.
                                                                                                                                                                                                                                                                                                                     20-MAY-2004
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                                                                                                                                             10-MAR-2004.
                                                                                                                                                                                                                                                                                                                                                                                  ADL32038 standard;
 (REAS-) RES ASSOC BIOTECHNOLOGY
                                                                                                                                                                                                        sapiens.
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2000EP-00114089.
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                                                                                                                                                                                                                                           method
                                                                             99JP-00194486.
                                                                                                                                                                                                                                                                                                                                                                                  protein;
                                                                                                                                                                                                                                                                                                                    entry)
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99.7%;
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Pred. No. 5.9e-175;
0; Mismatches 1;
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                                                                                             Human; secreted protein; nutrition; cytokine; cell proliferation; differentiation; immune stimulating; vaccine; suppression; gene there haematopolesis regulation; tissue growth; activin; inhibh; cadherin; chemotactic; chemokinetic; haemostatic; thrombolytic; anti-inflammatc
                                                 Homo sapiens
                                                                                                                                                                                 Human
                                                                                                                                                                                                                 29-SEP-1999
                                                                                                                                                                                                                                                                              AAY29331 standard;
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ma T, Nagai
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Pred. No. 5.9e
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K, Kojima
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5.9e-175;
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T, Koga
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Best Local Similarity
Matches 323; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                               The present sequence represents a human secreted protein. Human secreted protein protein protein services and proteins are predicted to have biological activities which would make them suitable for treating, preventing or ameliorating medical conditions in humans and animals, although no supporting data is given. Suggested activities include nutritional activity, cytokine and cell proliferation/differentiation activity, immune stimulating (e.g. as vaccines) or suppressing activity, haemostatic activity, tissue growth activity, haemostatic activity, inchemotactic/chemokinetic activity, haemostatic and thrombolytic activity, receptor/ligand activity, and tumour invasion suppressor activity, and tumour inhibition activity. The polynucleotides are also stated to be useful for
                                                                                                                                                                                                                                                                                                                                                                                              Sequence 339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 28; Page 122-123; 139pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New polynucleotides encoding fetal brain potentially used
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20-JAN-1999;
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                                                                      KHSKSFKENPNCLPHHHQCFPRRLSSAAPTVGPLTSYHQYHNQPIHSVSEGVDFYSELRN
                                                                                                                            HMMYSQVEQATVNI.GPEDWR.PHVWNYGWA.FYMAWI.SFTCCWASAVTTENTYTRWVI.EFKC
                                                                                                                                                                   KREILWLSLGTQITYIGLQFISFLLLLTDLLLTGNPACGLKLSAFAAVSSVLSGLLGMVA
                                                                                                                                                                                KREILMLSLGTQITYIGLQFISFLLLLTDLLLTGNPACGLKLSAFAAVSSVLSGLLGMVA
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                                                     KHSKSFKENPNCLPHHHQCFPRRLSSAAPTVGPLTSYHQYHNQPIHSVSEGVDFYSELRN
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Agostino 1
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Pred. No. 4.4e-174;
1; Mismatches 0;
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The invention relates to novel human secreted proteins, the nucleic acids cencoding them. The protein may exhibit cytokine, cell proliferation or cell differentiation activity or may induce production of other cytokines cell incertain cell populations and may exhibit immune stimulating or immune certain cell populations and may exhibit immune stimulating or immune certain cell populations and may exhibit immune stimulating or immune cell suppressing activity, which is useful for the treatment of various immune deficiencies and disorders e.g. severe combined immunodeficiency (SCID), cell cerythematosus, rheumatoid arthritis, autoimmune pulmonary inflammation. Cell The proteins are also useful in the treatment of diseases and disorders cerythematosus, skin and organ transplantation and in graft-versus-host diseases (GYHD), in the induction of tunour immunity, myeloid or lymphoid cell deficiencies, wound healing and tissue repair, in the treatment of burns, incisions and ulcers; as well as in treatment of periodontal cell deficiencies, wound healing and tissue repair, in the treatment of processes, disease, osteoparathritis, mediated by inflammatory cell disease, osteoparathritis, mediated by inflammatory cell ascarces, satisfies or osteoparathritis, mediated by inflammatory bowel cell disease, ulcers, bone regeneration. The protein, having activin- or cardiac and central nervous system vessel e.g. stroke, sepsis, inflammatory bowel cell sease, ulcers, bone regeneration. The protein, having activin- or cardiac and cell as food supplements. The proteins and nucleic acids are also useful as food supplements. The present sequence represents a secreted constitute of inhibins to decrease fertility in female mammals as contested acids are also
    Query Match
Best Local S
Matches 323
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               system disorders (e.g. stroke).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Secreted human proteins, useful as vaccine for treating various diseases such as autoimmune disorders (e.g. multiple sclerosis), and nervous
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2001-639363/73.
N-PSDB; AAS59275.
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04-DEC-2000; 2000US-00729674.
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Agostino MJ,
Merberg D;
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Pred. No. 4.4e
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er RJ, Spaulding V,
                                          .4e-174;
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02-JAN-1998;
07-JAN-1998;
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08-JAN-1998;
13-JAN-1998;
                                                                                                                                                                                                                                                                                                                                                                        Human; clone bd306-7; clone yb8-1; ATCC number 98599; gene therapy; immune disorder; bacterial infection; fungal infection; cancer; tumour; autoimmune disorder; systemic lupus erythematosus; wound; ulcer; inhibin; osteoporosis; osteoarthritis; nervous system disorder; neuropathy; Alzheimer's disease; Parkinson's disease; Huntington's disease; activin; haemophilia; cardiac infarction; stroke; sepsis; arthritis; vulnerary; ischaemia-reperfusion injury; inflammatory bowel disease; chemotactic; Crohn's disease; cytostatic; anti-inflammatory; immunomodulator; neuroprotective; haemostatic; thrombolytic; anti-inflammatory.
                                     (JACO/)
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             (EVAN/)
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Merberg I
Wong GG,
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STEININGER R J.
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                                                            KHSKSFKENDNCLPHHHQCFFRRLSSAAPTVGPLTSYHQYHNQPIHSVSEGVDFYSELRN
                                                                                                                                                 HMMYSQVPQATVNI.GPEDWRPHVWNYGWA PYMAWLS FTCCMASAVTT FNT YTRMVLEFKC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              339 AA;
                                         KHSKSFKENPNCLPHHHQCFPRRLSSAAPTVGPLTSYHQYHNQPIHSVSEGVDFYSELRN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
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M, Agostino MJ,
Fechtel K;
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Pred. No. 4.4e-174;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                               No. 4.4e-174;
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Steininger RJ, Spaulding
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                                                                                                                                                               Matches 274; Conservative
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                                                                                                                                                                                                                                             clones. 830 cDNA molecules encoding a human protein have been isolated and nucleotide sequences of 5'- and 3'-ends of the cDNA molecules have been determined. Primers for synthesising the full length cDNA are useful for clarifying the function of the protein encoded by the cDNA. The full length clones were obtained by construction of full length enriched cDNA libraries that were synthesised by the oligo-capping method. The primers enable the production of the full length cDNA easily without any special methods. The present sequence is a polypeptide encoded by a full length human cDNA of the invention. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in CD-ROM format directly from EPO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              08-JUL-1999; 99JP-00194486
11-JAN-2000; 2000JP-00118774
02-MAY-2000; 2000JP-00183765
                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                           830 Primers useful for synthesizing full length cDNA clones and their use in genetic manipulation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                       The invention relates to primers for synthesising full length cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 8; SEQ ID NO 4055; 1380pp + Sequence Listing; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ota T,
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                                                                         61 MPVSLDGDTNTSTQEVVQYNWETGDDRPSPRSPRSGMWLSCEETVBEPGERCRSPIELTP
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                                                                                                                         1 MAKMELSKAPSGQRTILLSAILSMLSLSFSTTSLLSNYWPVGTQKVPKPLCEKGLAAKCFD
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                                                                                                                                                                               Similarity
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    PAKR--
                            PAKRBILWLSLGTQITYIGLQFISFLLLLTDLLLTGNPACGLKLSAPAAVSSVLSGLLGM
                                                        MPVSLDGDTNTSTQEVVQYNWETGDDRFSFRSFRSGMWLSCEETVEEPGERCRSFIELTP
                                                                                                             MAKMELSKAPSGQRTLLSAILSMLSLSFSTTSLLSNYWFVGTQKVPKPLCEKGLAAKCFD
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84.0%;
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na T, Nagai
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                                                                                                                                                               Score 1450.5; DB 4;
Pred. No. 4.7e-145;
1; Mismatches 0;
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                                                                                                                                                                  Indels
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T, Koga
                                                                                                                                                                 51;
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  GLLCM
                                                                                                                                                                 Gaps
                                                                                  120
  129
                              180
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181 VAHMYSQVFQATVNLGPEDWRPHVWNYGWAFYMAWLSFTCCMASAVTTFNTYTRMVLEF

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RESULT 8
ADL32022
ID ADL3
XX Huma
XX huma
XX Huma
XX Homo
XX Homo
XX AC
PN EP13
XX O1-4
PF 07-4
XX AC
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PR 02-7

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Best Local S
Matches 274
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11-JAN-2000;
02-MAY-2000;
07-JUL-2000;
                                                                                                                                                                                                                                                                                                              This invention relates to a novel primers useful for synthesising full length cDNA molecules that encode human proteins. Specifically, it refers to secretory or membrane proteins that are potential therapeutic agents/ target molecules in the field of medicine, and in particular genes encoding proteins that are associated with signal transduction, glycoproteins and transcription. The present invention describes a method for efficiently cloning a full length human cDNA from both the 5' and 3' ends using the oligo-capping method. This polypeptide sequence is a full length human protein of the invention.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EP1396543-A2
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                                                                                                                                                                                                                                                                      Sequence 275 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        New oligonucleotide primers (830 cDNAs)
length human cDNAs.
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MPVSLDGDTNTSTQEVVQYNWETGDDRFSFRSFRSGMWLSCEETVEEPGERCRSFIELTP
                                                                        MAKMBLSKAFSGQRTLLSAILSMLSLSFSTTSLLSNYWFVGTQKVPKPLCEKGLAAKCFD
                                                                                                      MAKMELSKAPSGQRTLLSAILSMLSLSFSTTSLLSNYWFVGTQKVFKPLCEKGLAAKCFD
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; 2000JP-00118774.
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; 2000EP-00114089.
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a T, Nagai
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                                                                                                                                                                  Score 1450.5; DB 8;
Pred. No. 4.7e-145;
1; Mismatches 0;
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L K, Kojima
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S, Otsuki
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T, Koga
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                                                                                                                                                                       51,
                                                                                                                                                                       Gaps
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RESULT 9
ABJ19723
ID ABJ1
XX ABJ1
XX ABJ1
XX ABJ1
XX ABJ1
XX ABJ1
XX Huma
XX Huma
XX Huma
XX Huma
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XX SHOmc
XX Fadi
XX Homc
XX 12-4
PN WO20
XX 27-1
PR 12-4
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                                                          The invention comprises the amino acid and coding sequences of human secreted proteins. The DNA and protein sequences of the invention are useful for the diagnosis and treatment of allergic disorders, asthmatic disorders and immediate hypersensitivity diseases (e.g. hay fever, allergic conjunctivitis and allergic rhinitis). The proteins of the invention are also useful for identifying a binding partner. The nucleic acids of the invention are also useful for chromosome identification, radiation hybrid mapping or long-range restriction mapping. The present amino acid sequence represents a human secreted protein of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Use of human secreted proteins and nucleic acids for preparing diagnostic or pharmaceutical composition for diagnosing or treatallergic or asthmatic disorders, e.g. asthma, hay fever, or all
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           27-MAR-2001; 2001US-0278650P.
12-SEP-2001; 2001US-00950082.
12-SEP-2001; 2001US-00950083.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human; protein therapy; immediate hypersensitivity disease; allergic disorder; asthmatic disorder; gene therapy; secret hay fever; allergic conjunctivitis; allergic rhinitis; binding partner identification; chromosome identification;
   Sequence 323
                                                                                                                                                                                                                                                                                                                                                                                  Claim 1; Page 644-645; 823pp; English
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Query Match

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Score 1232;

DB 6;

Length 323;

Best Local Similarity

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                                                                                                                                                                                                                                                                                                                                                                                   Human; secreted protein; nootropic; neuroprotective; cytostatic; virucide; dermatological; immunosuppressive; antisintlammatory; anti-HIV; vulnerary; antibacterial; antipachenian; antisickling; antianaemic; antiarthritic; cancer; antirheumatic; hepatotropic; cerebroprotective; antiinflammatory; antiallergic; antidiabetic; antiulcer; anticonvulsant; antifungal; antiparasitic; cardiant; immune disorder; infection; vaccine
                                        New human secreted proteins encoded by genes contained in cDNA clones (e.g. HGCAC19), useful for preventing, treating or diagnosing e.g. AII multiple sclerosis, herpes virus, leukemia, tick-borne encephalitis or West Nile fever.
                                                                                                                                                                                                  27-MAR-2001; 2001US-0278650P
12-SEP-2001; 2001US-00950082
12-SEP-2001; 2001US-00950083
                Claim
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                                                                                                                                                                                                                                                                                                           WO200277186-A2
                                                                                                           N-PSDB;
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                                                                                                                                                                                                                                                                                                                                                                           cardiovascular disorder; neurological disease;
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               Page 1479;
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0; Mismatches 41;
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Best Local S
Matches 251
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                                                                                 WSSSASIV-
                                                                                                                      MASAVTTFNTYTRMVLEFKCKHSKSFKENPNCLFHHHQCFPRRLSSAAPTVGPLTSYHQY
                                                                                                                                                                                       -GMVAHMMYSQVFQATVNLGFEDWRPHVWNYGWAFYM-----AWLSFT------CC
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                                                                                                                                                                                                                                                                                                                      SLDGDTNTSTQEVVQYNWETGDDRFSFRSFRSGMWLSCEETVEEPGERCRSFIELTPPAK
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HNQPIHSVSEGVDFYSELRNKGFQRGASQELKEAVRSSVEBEQC
                                                                                                                                                            PGDVAHMYSQVFQATVNLGPEDWRPHVWNYGWAFYMACSPSXAAWRRLSPXSTXTPGWC
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Pred. No. 9.8e-122;
0; Mismatches 41;
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LT 11
1267
                                                                                                                                                                                                                                                                                        Human; secreted protein; cancer; tumour; hyperproliferative disorder; autoimmune disorder; inflammation; anglogenic diseases; AIDS; acquired immunodeficiency syndrome; hepatitis; anaemia; wound healing; drug screening; chromosome identification; chromosome mapping;
                                                                                                                                                                                                                                          cytostatic; gene therapy; antiinflammatory; antianaemic; vulnerary.
27-MAR-2001; 2001US-0278650P
                                               26-MAR-2002; 2002WO-US009370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ABR01267 standard; protein;
                                                                                                                                               WO200277013-A2
                                                                                                                                                                                               Homo sapiens.
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                                                                                                                                                                                                                                                                                                                                                                                                              secreted protein HTEEW69,
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                                                                                                                                                                                                                                                                    immunomodulator;
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anti-HIV;

NO:748.

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RESULT 12
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Best Local Simi:
Matches 251;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cc protein genes, and ABP00947-ABP01363 represent the proteins they encode. Cc AB273698-AB274687 represent human secreted protein genomic fragments. The circumstantion also encompasses antibodies appecific for the secreted proteins, the use of the secreted proteins in drug screening and recombinant vectors and host cells comprising a nucleic acid of the invention. The secreted proteins are thought to be involved in biological activities associated with cellular signalling, cellular differentiation, cell migration, prohormone activation and neurotransmitter activity. The secreted proteins, nucleic acids encoding them, antibodies or antibody fragments specific for the secreted proteins, and modulators of protein activity are useful for diagnosing or treating cancers or other hyperproliferative disorders. Additionally, the secreted proteins and their nucleic acids may also be used in the treatment of autotimmune disorders, inflammatory disorders, diseases involving angiogenesis, AIDS (acquired immunodeficiency syndrome), hepatitis, anaemia, and to promote wound healing. Nucleic acids of the invention may be used for chromosome individuals from minute biological samples, as hybridisation probes, and secreted protein of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
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12-SEP-2001; 2001US-00950083.
                    ADA98352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ABZ73281-ABZ73697 represent cDNAs corresponding to protein genes, and ABP00947-ABP01363 represent the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 13; Page 1479; 2474pp; English.
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DB; ABZ73601.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MELSKAFSGORTILLSAILSMLSLSFSTTSLLSNYWFVGTOKVPKPLCEKGLAAKCFDMPV
                  standard;
                                                                                                                             HNQPIHSVSEGVDFYSELRNKGFQRGASQELKEAVRSSVEEEQC 326
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                                                                                                                                                                                                                                                   PGDVAHMMYSQVFQATVNLGPEDWRPHVWNYGWAFYMACSPSXAAWRRLSPXSTXTPGWC
                                                                                                                                                                                                                                                                                                                           RENPMVIPG-NADHLHRTSIHQLPPATNRLATHWEPC-----LWAQTERLCCCFLCPVRS
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                                                                                                          HNQPIHSVSEGVDFYSELRNKGFQRGASQELKBAVRSSVEEEQC
                                                                                                                                                                                                                                                                             -GMVAHMMYSQVFQATVNLGPEDWRPHVWNYGWAFYM-----AWLSFT------CC
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                protein;
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Pred. No. 9.8e-122;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 323;
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Matches 251
                                                                                                                                                                                                                                                                                                                                                                    The invention comprises the amino acid and coding sequence of human secreted proteins. The DNA and protein sequences of the invention are useful in the treatment of cardiovascular disorders, such as: arrhythmia, atherosclerosis, stroke, endocarditis, congestive heart failure, rheumatic heart disease, cardiomyopathy, haemorrhoids, varicose veins, migraine, or thrombosis. The DNA and protein sequences may also be used for treating or preventing: neural disorders, immune system disorders, muscular disorders, reproductive disorders, gastrointestinal disorders, pulmonary disorders, renal disorders, gastrointestinal disorders, pulmonary disorders, renal disorders, proliferative disorders and/or cancerous diseases. The present amino acid sequence represents a human secreted protein of the invention. NOTE: The present sequence is shown on the WIPO website.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             human; secreted pourse; stroke; endocarditis; curyout atherosclerosis; stroke; endocarditis; curyout atherosclerosis; stroke; cardiomyopathy; haemorrhoids; varicose curmiquatine; thrombosis; neural disorder; immune system disorder; migraine; thrombosis; neural disorder; gastrointestinal disorder; muscular disorder; reproductive disorder; gastrointestinal disorder; cancer.
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12-SEP-2001;
12-SEP-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New human secreted polypeptide and nucleic acid molecules, useful diagnosing, preventing, prognosticating or treating cardiovascular disorders (e.g. arrhythmia, atherosclerosis, cardiomyopathy, or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           human; secreted protein; cardiovascular disorder; arrhythmia; atherosclerosis; stroke; endocarditis; congestive heart failure; rheumatic heart disease; cardiomyopathy; haemorrhoids; varicose
                                                                                                                                                                                                                                                                                                                                         Sequence
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                                                                                                                                                     SLDGDTNTSTQEVVQYNWETGDDRFSFRSFRSGMWLSCEETVEEPGERCRSFIELTPPAK 123
                                                                                                                                                                                                                       MELSKAFSGQRTLLSAILSMLSLSFSTTSLLSNYWFVGTQKVPKPLCEKGLAAKCFDMPV
                                                                                                 REILWLSLGTQITYIGLQFISFLLLLTDLLLTGNPACGLKLSAFAAVSSVLSGLL-----
                                                                                                                                                                                                     MELSKAPSGORTLLSAILSMLSLSFSTTSLLSNYWFVGTQKVPKPLCEKGLAAKCFDMPV
PGDVAHMMYSQVFQATVNLGFEDWRPHVWNYGWAFYMACSPSXAAWRRLSPXSTXTPGWC
                               -GMVAHMMYSQVFQATVNLGPEDWRPHVWNYGWAFYM-----AWLSFT-----CC
                                                                 RENPMVIPG-NADHLHRTSIHQLPPATNRLATHWEPC-
                                                                                                                                  SLDGDTNTSTQEVVQYNWETGDDRFSFRSFRSGMWLSCEETVEEPGERCRSFIELTPPAK
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; 2001US-00950082.
; 2001US-00950083.
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                                                                                                                                                                                                                                                                                      Score 1232;
Pred. No. 9.
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                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                    DB 6;
                                                                                                                                                                                                                                                                        41;
                                                                                                                                                                                                                                                                                                      Length 323;
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                                                                   LWAQTERLCCCFLCPVRS
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RESULT 13
AAB51635
ID AAB51
The polynucleotide sequences given in AAC93364 to AAC93412 encode the CC human secreted proteins given in AAB51620 to AAB51668. AAB51669 to CC AAB51722 represent human secreted polypeptide sequences and proteins CC homologous to them, which are given in the exemplification of the present invention. Human secreted proteins have activities based on the tissues and cells the genes are expressive; antirheumatic; antiproliferative; cytostatic; cardiant; vasotropic; cerebroprotective; nootropic; crostatic; cardiant; vasotropic; cerebroprotective; and cophitalmological. The polynucleotides and polypeptides can be used to prevent, treat or ameliorate a medical condition in e.g. humans, mice, crabbite, goats, horses, cats, dogs, chickens or sheep. They are also used in diagnosing a pathological condition or susceptibility to a sutoimmune diseases, hyperproliferative disorders, cardiovascular disorders, infections caused by bacteria, viruses and fungi and ocular disorders. The polypeptides can also be used to aid wound healing and cepithelial organs before transplantation, for supporting cell culture of primary tissues, to regenerate tissues and in chemotaxis. The polypeptides can also be used additive or preservative to
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20-JAN-2000; 2000US-0177049P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cerebroprotective; nootropic; neuroprotective; antibacterial; virucide; fungicide; ophthalmological; gene therapy; autoimmune disease; infection; hyperproliferative disorder; cardiovascular disorder; anglogenesis; cerebrovascular disorder; nervous system disorder; ocular disorder;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Rogen
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                                                                                                                                                                                                                                                                                                                                                                                                                               Isolated nucleic acid molecule encoding in preventing, treating or ameliorating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (HUMA-) HUMAN GENOME (ROSE/) ROSEN C A.
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DB; AAC93379.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ruben SM,
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                                                                                                                                                                                                                                                                                                                                                                                                                                   a human secreted protein is used a medical condition.
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N-PSDB;
                                                Novel 1405 isolated polypeptides, useful for diagnosis, treatment prevention of neural, immune system, muscular, reproductive, gastrointestinal, pulmonary, cardiovascular, renal and proliferati
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Cytostatic; immunosuppressive; nootropic; neuroprotective; antiviral; antiallergic; hepatotropic; antidiabetic; antiinflammatory; antiulcer; vulnerary; anticonvulsant; antibacterial; antifungal; antiparastic; cardiant; gene therapy; cancer; immune disorder; cardiovascular disorder
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neurological disease; infection; human;
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Best Local Similarity
Matches 201; Conserv
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11-JAN-2000;
02-MAY-2000;
   WPI; 2001-524255/58
                                                      Ota T, Nishikawa T,
Wakamatsu A, Sugiyar
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; 2000JP-00118774.
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ma T, Nagai
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Pred. No. 3.3e-106;
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                                                      Hayashi K,
K, Kojima
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                                                                                     Ishii S,
                                                      Otsuki
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Best Local Similarity 61.9
Matches 226; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The invention relates to primers for synthesising full length cDNA clones. 830 cDNA molecules encoding a human protein have been isolated and nucleotide sequences of 5'- and 3'-ends of the cDNA molecules have been determined. Primers for synthesising the full length cDNA are useful for clarifying the function of the protein encoded by the cDNA. The full length clones were obtained by construction of full length enriched cDNA libraries that were synthesised by the oligo-capping method. The primers enable the production of the full length cDNA easily without any special methods. The present sequence is a polypeptide encoded by a full length human cDNA of the invention. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in CD-ROM format directly from EPO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 343 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        N-PSDB; AAK94609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 8;
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EEEQC 326
                                                             FPRRLSSAAPTVGPLTSYHQYHQQFIHSVSEGVDFYSELRNKGFQRGASQELKEAVRSSV
                                                                                                                                                                                         NPMVIPGNADHLHRTSTHOLPPATNRLATH-WEPCLW-----AQTERLCCCFLCPVRS
                                                                                                                                                                                                                                                                                                    PAKREILWLSLGTQITYIGLQFISFLLLLTDLLLTGNPACGLKLSAFAAVSSVLSGLLG-
                                                                                                                                                                                                                                                                                                                                           MPVSLDGDTNTSTQEVVQYNWETGDDRFSFRSFRSGMWLSCEETVEEPGERCRSFIELTP
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                                     FPRRLSSAAPTVGPLTSYHQYHNQPIHSVSEGVDFYSELRNKGFQRGASQELKEAVRSSV
                                                                                                              PGDGGPHDVFTSLPSDCQLGSRRLETTCLELWLGLLHGLALLHLLHGVGCHHLQHVHHQC
                                                                                                                                                                                                                             --MVA-----HMMYSQVFQ---ATVNLGPEDWRPHVWNYGWAFYMAWLSFTCCMASAVTT
                                                                                                                                                                                                                                                                PAKRGEKGL------LEFATLQGPCHPTLRFG----GKRLMEKASLPSPPLGLCGK 166
                                                                                                                                                    -----FNTYTRMV-----LEFKC-----KHSKS---FKENPNC--LPH-HHQC
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Pred. No. 1e-95;
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Search completed: July 14, Job time: 111.417 secs 2005, 20:27:27

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EEEQC 343

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Result
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Maximum Match 100%
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Maximum DB seq length: 2000000000
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1738
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1: /cgn2_6/ptodata/2/pubpaa/USO7_PUBCOMB.pep:*

2: /cgn2_6/ptodata/2/pubpaa/PCT_NEW_PUB.pep:*

3: /cgn2_6/ptodata/2/pubpaa/USO6_REW_PUB.pep:*

4: /cgn2_6/ptodata/2/pubpaa/USO7_NEW_PUB.pep:*

5: /cgn2_6/ptodata/2/pubpaa/USO7_NEW_PUB.pep:*

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Copyright (c) 1993 - 2005 Compugen Ltd.
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17 US-10-913-553-138
15 US-10-264-227-2183
19 US-09-989-722-272
9 US-09-989-723-272
9 US-09-989-727-272
9 US-09-989-727-272
9 US-09-989-731-272
9 US-09-989-731-272
9 US-09-989-732-272
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PUBCOMB.pep:*
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Sequence 138, App
Sequence 2183, App
Sequence 272, App
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ALIGNMENTS

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APPLICANT: Agostino, Michael J.
APPLICANT: Steininger II, Robert J.
APPLICANT: Spaulding, Vikki
APPLICANT: Wong, Gordon G.
APPLICANT: Wong, Gordon G.
APPLICANT: Clark, Hilary
APPLICANT: Genetics Institute, Inc.
TITLE OF INVENTION: SECRETED PROTEINS AND POLYNUCLEOTIDES ENCODING THEM
FILE REFERENCE: 6055-64X
CURRENT APPLICATION NUMBER: US/09/729,674
CURRENT APPLICATION NUMBER: 09/539,330
PRIOR APPLICATION NUMBER: 09/539,330
PRIOR PILING DATE: 2000-03-30
NUMBER OF SEQ ID NOS: 283
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 138
TENCTH: 339
                                          US-09-729-674-138
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US-09-729-674-138
  Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Jacobs, Kenneth
APPLICANT: McCoy, John M.
APPLICANT: LaVallie, Edward R.
                                                         TYPE: PRT
ORGANISM: Homo sapiens
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Agostino, Michael J.
Steininger II, Robert J
Spaulding, Vikki
Wong, Gordon G.
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  99.3%;
  Score 1725;
  BB
  9
Length 339;
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242

255

315

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APPLICANT: Genetics Institute, Inc.
TITLE OF INVENTION: SECRETED PROTEINS AND POLYNUCLEOTIDES ENCODING THEM
FILE REFERENCE: 6055-64X
CURRENT APPLICATION NUMBER: US/10/913,553
CURRENT FILING DATE: 2004-08-09
PRIOR APPLICATION NUMBER: US/09/539,330
PRIOR PILLNG DATE: 2000-03-30
NUMBER OF SEQ ID NOS: 283
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 138
LENGTH: 339
TYPE: PRT
CRGANISM: Homo sapiens
US-10-913-553-138
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Matches
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Best Local (
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APPLICANT:
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APPLICANT: McCoy, John M.
APPLICANT: LaVallie, Edward R.
APPLICANT: Collins-Racie, Lisa
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Spaulding, Vikki
Wong, Gordon G.
Clark, Hilary
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HMMYSQVFQATVNLGPEDWRPHVWNYGWAFYMAWLSFTCCMASAVTTFNTYTRMVLEFKC
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                                                                                       EMBLSKAFSGQRTLLSAILSMLSLSFSTTSLLSNYWFVGTQKVPKPLCEKGLAAKCFDMP
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Treacy, Maurice
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                                                                                                                                                            Conservative
                                                                                                                                                                          99.3%;
99.7%;
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                                                                                                                                                        Score 1725; DB 17;
Pred. No. 1.6e-173;
1; Mismatches 0;
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1; Mismatches 0;
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                                                                                                                                                            Indels
                                                                                                                                                                                          Length 339;
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Sequence 272, Application US/09989722
Patent No. US20020072067A1
GENERAL INFORMATION:
APPLICANT: Ashkenazi, Avi J.
APPLICANT: Baker, Kevin P.
APPLICANT: Botstein, David
APPLICANT: Benoyers, Luc
APPLICANT: Baton, Dan L.
APPLICANT: Ferrara, Napoleone
APPLICANT: Ferrara, Napoleone
APPLICANT: Gerber, Hanspeter
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; ORGANISM: Homo
US-10-264-237-2183
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US-09-989-722-272
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TITUE OF INVENTION: Nucleic Acids, Proteins, an
FILE REFERENCE: PA131P1
CURRENT APPLICATION NUMBER: US/10/264,237
CURRENT FILING DATE: 2002-10-04
PRIOR APPLICATION NUMBER: PCT/US01/16450
PRIOR FILING DATE: 2001-05-18
PRIOR FILING DATE: 2001-05-19
PRIOR FILING DATE: 2000-05-19
PRIOR FILING DATE: 2000-05-19
PRIOR FILING DATE: 2000-05-19
PRIOR FILING DATE: 2001-05-19
PRIOR FILING DATE: 2001-05-19
PRIOR FILING DATE: 2001-05-19
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US-10-264-237-2183
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SEQ ID NO 2183
LENGTH: 330
TYPE: PRT
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Best Local Similarity
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Pred. No. 6.9e-106;
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Indels Length 330;

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CURRENT APPLICATION NUMBER: US/09/989,722
CURRENT FILING DATE: 2001-11-19
PRIOR APPLICATION NUMBER: 60/049787
PRIOR FILLING DATE: 1997-06-16
PRIOR PILLING DATE: 1997-10-17
PRIOR PPLICATION NUMBER: 60/062250
PRIOR APPLICATION NUMBER: 60/065186
PRIOR FILLING DATE: 1997-11-12
PRIOR PILLING DATE: 1997-11-12
PRIOR PILLING DATE: 1997-11-13
PRIOR PILLING DATE: 1997-11-13
PRIOR PILLING DATE: 1997-11-13
PRIOR PILLING DATE: 1997-11-14
PRIOR APPLICATION NUMBER: 60/066770
PRIOR APPLICATION NUMBER: 60/066770
PRIOR APPLICATION NUMBER: 60/075945
PRIOR PILLING DATE: 1998-02-25
PRIOR PILLING DATE: 1998-02-25
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APPLICANT:
APPLICANT:
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TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
TITLE OF INVENTION: Acids Encoding the Same
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                       DR APPLICATION NUMBER: 60/088167
DR FILING DATE: 1998-06-05
DR APPLICATION NUMBER: 60/088202
DR FILING DATE: 1998-06-05
DR APPLICATION NUMBER: 60/088212
DR FILING DATE: 1998-06-05
DR FILING DATE: 1998-06-05
DR APPLICATION NUMBER: 60/088217
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REFILING DATE: 1998-04-28
OR APPLICATION NUMBER: 60/08
OR APPLICATION NUMBER: 60/08
REFILING DATE: 1998-05-07
OR APPLICATION NUMBER: 60/08
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APPLICATION NUMBER:
FILING DATE: 1998-0:
                                                                                                                                                                      APPLICATION NUMBER: 60/088033
FILING DATE: 1998-06-04
APPLICATION NUMBER: 60/088326
FILING DATE: 1998-06-04
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FILING DATE: 1998-06-04
APPLICATION NUMBER: 60/088026
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FILING DATE:
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APPLICATION NUMBER: 60/087759
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Roy, Margaret Ann
Stewart, Timothy A.
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REPLICATION NUMBER: 60/08861
OR RILING DATE: 1998-06-11
OR APPLICATION NUMBER: 60/08876
OR PILING DATE: 1998-06-16
OR PILING DATE: 1998-06-16
OR APPLICATION NUMBER: 60/089105
OR PILING DATE: 1998-06-16
OR APPLICATION NUMBER: 60/089512
OR PILING DATE: 1998-06-16
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OR APPLICATION NUMBER: 60/089538
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OR APPLICATION NUMBER: 60/08961
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OR APPLICATION NUMBER: 60/08991
OR APPLICATION NUMBER: 60/08994
OR APPLICATION NUMBER: 60/09025
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APPLICATION NUMBER: 60/088738
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FILING DATE: 1998-06-09
APPLICATION NUMBER: 60/088734
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APPLICATION NUMBER: 60/091544
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APPLICATION NUMBER: 60/091519
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APPLICATION NUMBER: 60/090678
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APPLICATION NUMBER: 60/091626
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APPLICATION NUMBER: 60/090696
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APPLICATION NUMBER: 60/090695
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FILING DATE:
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APPLICATION NUMBER: 60/091633
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APPLICATION 1
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APPLICATION NUMBER: 60/090557
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APPLICATION NUMBER: 60/090542
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LLHGVGCHHLQHVHQDGAGV 281
                                                                                                                                                                                                 PAKREILWLSLGTQITYIGLQFISFLLLLTDLLLTGNPACGLKLSAFAAVSSVLSGLLG-
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                                                                                                              NPMVIPGNADHLHRTSIHQLPPATNRLATH-WEPCLW-----AQTERLCCC-----
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Pred. No. 1.3e-60;
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TITLE OF INVENTION: Secreted and Transmembrai
TITLE OF INVENTION: Acids Encoding the Same
FILE REFERENCE: P2730PIC62
CURRENT APPLICATION NUMBER: 60/049787
FRIOR APPLICATION NUMBER: 60/049787
PRIOR APPLICATION NUMBER: 60/062250
PRIOR APPLICATION NUMBER: 60/062250
PRIOR APPLICATION NUMBER: 60/065311
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PRIOR APPLICATION NUMBER: 60/065311
PRIOR APPLICATION NUMBER: 60/066770
PRIOR FILING DATE: 1997-11-13
PRIOR APPLICATION NUMBER: 60/066770
PRIOR APPLICATION NUMBER: 60/075945
PRIOR APPLICATION NUMBER: 60/075945
PRIOR APPLICATION NUMBER: 60/078910
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PRIOR APPLICATION NUMBER: 60/083322
PRIOR APPLICATION NUMBER: 60/084600
PRIOR FILING DATE: 1998-05-28
PRIOR APPLICATION NUMBER: 60/087607
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APPLICANT: Ashkenazi, Avi J.
APPLICANT: Baker, Kevin P.
APPLICANT: Botstein, David
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                                                        APPLICATION NUMBER: 60/088026
FILING DATE: 1998-06-04
APPLICATION NUMBER: 60/088028
FILING DATE: 1998-06-04
             APPLICATION NUMBER: 60/088029
FILING DATE: 1998-06-04
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Gerritsen, Mary E.
Goddard, Audrey
Godowski, Paul J.
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Williams, P. Mickey
Wood, William I.
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Tumas, Daniel
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Gurney, Austin L.
Kljavin, Ivar J.
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Stewart, Timothy A.
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APPLICATION NUMBER: APPLICATION NUMBER: PILING DATE: 1998-0

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1998-06-1998-06-05 1998-06-04

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OR PILING DATE: 1998-06-24
OR APPLICATION NUMBER: 60/090435
OR PILING DATE: 1998-06-24
OR APPLICATION NUMBER: 60/090444
OR PILING DATE: 1998-06-24
OR APPLICATION NUMBER: 60/090445
OR PILING DATE: 1998-06-24
OR APPLICATION NUMBER: 60/090472
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OR PILING DATE: 1998-06-24
OR APPLICATION NUMBER: 60/090540
OR APPLICATION NUMBER: 60/090540
OR PILING DATE: 1998-06-24
OR APPLICATION NUMBER: 60/09057
OR APPLICATION NUMBER: 60/090676
OR FILING DATE: 1998-06-25
OR APPLICATION NUMBER: 60/090676
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OR APPLICATION NUMBER: 60/090676
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OR APPLICATION NUMBER: 60/090676
OR APPLICATION NUMBER: 60/090676
OR APPLICATION NUMBER: 60/090690
OR PILING DATE: 1998-06-25
OR APPLICATION NUMBER: 60/091600
OR PILING DATE: 1998-07-02
OR APPLICATION NUMBER: 60/091519
OR APPLICATION NUMBER: 60/091626
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                                     PAKREILWLSLGTQITYIGLQFISFLLLLTDLLLTGNPACGLKLSAFAAVSSVLSGLLG-
                                                                                                         MPVSLDGDTNTSTQEVVQYNWETGDDRFSFRSFRSFRSGMWLSCEBTVEBPGERCRSFIELTP
                                                                               MPVSLDGDTNTSTQEVVQYNWETGDDRFSFRSFRSGMWLSCEETVEEPGERCRSFIELTP
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LEFATLQGPCHPTLRFG---
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Pred. No. 1.3e-60
4; Mismatches 7
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FILING DATE: 1998-06-11
APPLICATION NUMBER: 60/08861
FILING DATE: 1998-06-11
APPLICATION NUMBER: 60/088876
FILING DATE: 1998-06-11

APPLICATION NUMBER: 60/088826 FILING DATE: 1998-06-10 APPLICATION NUMBER: 60/088858

PILING DATE: 1998-06-10 APPLICATION NUMBER: 60/088824 APPLICATION NUMBER: 60/088742 FILING DATE: 1998-06-10 APPLICATION NUMBER: 60/088810

FILING DATE: 1998-06-10

DR APPLICATION NUMBER: 60/089105
DR FILING DATE: 1998-06-12
DR APPLICATION NUMBER: 60/089440
DR FILING DATE: 1998-06-16
DR APPLICATION NUMBER: 60/089512
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60/089532

APPLICATION NUMBER: 60/089514

APPLICATION NUMBER: 60/089538 FILING DATE: 1998-06-17 APPLICATION NUMBER: 60/089598

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APPLICATION NUMBER: 60/088655 FILING DATE: 1998-06-09 APPLICATION NUMBER: 60/088217 FILING DATE: 1998-06-05 FILING DATE: 1998-06-APPLICATION NUMBER: 60/088212

APPLICATION NUMBER: 60/088738 FILING DATE: 1998-06-10 APPLICATION NUMBER: 60/088734 FILING DATE: 1998-06-10

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NUMBER: 60/089653 : 1998-06-17

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APPLICATION NUMBER: 60/089599 FILING DATE: 1998-06-17 APPLICATION NUMBER: 60/089600 FILING DATE: 1998-06-17

FILING DATE: 1998-06-18 APPLICATION NUMBER: 60/089907

OR APPLICATION NUMBER: 60/089948
OR FILING DATE: 1998-06-19
OR APPLICATION NUMBER: 60/089952
OR FILING DATE: 1998-06-19
OR APPLICATION NUMBER: 60/090246
OR FILING DATE: 1998-06-22
OR APPLICATION NUMBER: 60/090252
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OR APPLICATION NUMBER: 60/090349
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APPLICATION NUMBER: 60/089947 FILING DATE: 1998-06-19

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NUMBER: 60/089908

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Query Match
Best Local Similarity 51.0
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FILING DATE: 1998-06-24
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APPLICATION NUMBER: 60/090435
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FILING DATE: 1998-06-23
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                Score 657.5; DB 9;
Pred. No. 1.3e-60;
L4; Mismatches 76;
                   Indels
                                                                  Length
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                Gape
                   11;
APPLICANT: Matanabe, Colin K.
APPLICANT: Williams, P. Mickey
APPLICANT: Wood, William I.
APPLICANT: Wood, William I.
APPLICANT: Zhang, Zemin
TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and
TITLE OF INVENTION: Acids Encoding the Same
TITLE OF INVENTION: Necids Encoding the Same
TITLE OF INVENTION NUMBER: US/09/989,727
CURRENT APPLICATION NUMBER: 00/049787
PRIOR PILING DATE: 1997-06-16
PRIOR APPLICATION NUMBER: 60/062250
PRIOR APPLICATION NUMBER: 60/062250
PRIOR APPLICATION NUMBER: 60/065186
PRIOR PILING DATE: 1997-10-17
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: Baker, Kevin P.
: Botstein, David
: Desnoyers, Luc
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Kljavin, Ivar J.
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Grimaldi, J. Christopher
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Gerritsen, Mary B
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art, Timothy
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APPLICANT: Ashkenazi, Avi J.
APPLICANT: Baker, Kevin P.
APPLICANT: Botstein, David
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Matches 165
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        APPLICANT: Wood, William 1.
APPLICANT: Zhang, Zemin
TITLE OP INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
TITLE OP INVENTION: Acids Encoding the Same
FILE REPERENCE: P2730P1C70
FILE REPERENCE: P2730P1C70
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Gerritsen, Mary B.
Goddard, Audrey
Godowski, Paul J.
Grimaldi, J. Christopher
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                                                                                                                               Watanabe, Colin K. Williams, P. Mickey Wood, William I.
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                                                                                                                                                                                                                 Roy, Margaret Ann
Stewart, Timothy A.
                                                                                                                                                                                                                                                                  Paoni, Nicholas F.
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Kljavin, Ivar J.
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APPLICATION NUMBER: 60/083322
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DR FILING DATE: 1998-07-07
DR APPLICATION NUMBER: 60/091982
DR FILING DATE: 1998-07-07
DR APPLICATION NUMBER: 60/092182
DR FILING DATE: 1998-07-09
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DR FILING DATE: 1998-06-26

DR APPLICATION NUMBER: 60/090863

DR FILING DATE: 1998-06-26

DR FILING DATE: 1998-06-26

DR FILING DATE: 1998-07-01

R APPLICATION NUMBER: 60/091478
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RR FILLING DATE: 1998-07-02
RR APPLICATION NUMBER: 60/091626
RR FILLING DATE: 1998-07-02
RR APPLICATION NUMBER: 60/091633
RR FILLING DATE: 1998-07-02
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APPLICATION NUMBER: 60/091544
FILING DATE: 1998-07-01
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                                                                                                                                                                                              Baker, Kevin P.
Botstein, David
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
                                                     Gerber, Hanspeter
Gerritsen, Mary B.
Goddard, Audrey
Godowski, Paul J.
Grimaldi, J. Christopher
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          --MVA-----HMMYSQVFQ---ATVNLGPEDWRPHVWNYGWAFYMAWLSFTCCMASAVTT
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           Kljavin, Ivar J.
Napier, Mary A.
                                           Gurney, Austin
                                                                                                                                    Fong, Sherman
                                                                                                                                                    Eaton, Dan L.
Ferrara, Napoleone
                                                                                                                                                                                   Desnoyers, Luc
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Pred. No. 1.3e-60;
4; Mismatches 76;
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120 120 60

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APPLICATION NUMBER: 60/090557 FILING DATE: 1998-06-24 APPLICATION NUMBER: 60/090676 FILING DATE: 1998-06-25 APPLICATION NUMBER: 60/090678

FILING DATE: 1998-06-25 APPLICATION NUMBER: 60/090690

APPLICATION NUMBER: 60/090540 FILING DATE: 1998-06-24 APPLICATION NUMBER: 60/090542 FILING DATE: 1998-06-24

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NUMBER: 60/090695 NUMBER: 60/090694

1998-06-25

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FILING DATE:

APPLICATION NUMBER: 60/090435 FILING DATE: 1998-06-24

APPLICATION NUMBER: 60/090444

1998-06-24

PILING DATE: 1998-06-24 APPLICATION NUMBER: 60/090431 APPLICATION NUMBER: 60/090429

PILING DATE: 1998-06-23 APPLICATION NUMBER: 60/090355 APPLICATION NUMBER: 60/090349

FILING DATE: 1998-06-24

DR APPLICATION NUMBER: 60/090445
DR FILLING DATE: 1998-06-24
DR APPLICATION NUMBER: 60/090472
DR FILLING DATE: 1998-06-24
DR APPLICATION NUMBER: 60/090535
DR FILLING DATE: 1998-06-24

PRIOR PRIOR

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APPLICATION NUMBER: 60/090252 FILING DATE: 1998-06-22 APPLICATION NUMBER:

60/090246

APPLICATION NUMBER: 60/090254

1998-06-22

1998-06-22

PRIOR PRIOR

APPLICATION NUMBER: 60/089908 APPLICATION NUMBER: 60/089907 FILING DATE: 1998-06-18

APPLICATION NUMBER: 60/089653 FILING DATE: 1998-06-17 APPLICATION NUMBER: 60/089801 FILING DATE: 1998-06-18

FILING DATE: 1998-06-17 APPLICATION NUMBER: 60/089600 APPLICATION NUMBER: 60/089599 APPLICATION NUMBER: 60/089598

FILING DATE: 1998-06-17

OR FILING DATE: 1998-06-18

OR APPLICATION NUMBER: 60/089947

OR FILING DATE: 1998-06-19

OR APPLICATION NUMBER: 60/089948

OR FILING DATE: 1998-06-19

OR APPLICATION NUMBER: 60/089952

OR PILING DATE: 1998-06-19

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APPLICANT: Zhang, Zemin
TITLE OF INVENTION: Secreted and Transmembratiles of INVENTION: Acids Encoding the Same FILE REFERENCE: P2730P1C57
CURRENT APPLICATION NUMBER: US/09/989,732
CURRENT FILING DATE: 2001-11-19
PRIOR APPLICATION NUMBER: US/09/989,732
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OR PILING DATE: 1997-06-16
OR PILING DATE: 1997-06-16
OR APPLICATION NUMBER: 60/062250
OR FILING DATE: 1997-10-17
OR APPLICATION NUMBER: 60/065186
OR FILING DATE: 1997-11-12
OR APPLICATION NUMBER: 60/065311
OR PILING DATE: 1997-11-13
OR APPLICATION NUMBER: 60/066770
OR FILING DATE: 1997-11-24
OR APPLICATION NUMBER: 60/075945
OR APPLICATION NUMBER: 60/078910
DR APPLICATION NUMBER: 60/088212

OR FILING DATE: 1998-06-05

OR PILING TON NUMBER: 60/088217

OR APPLICATION NUMBER: 60/088217

OR APPLICATION NUMBER: 60/088655

OR FILING DATE: 1998-06-09

OR APPLICATION NUMBER: 60/088734

OR FILING DATE: 1998-06-10

OR APPLICATION NUMBER: 60/088738

OR APPLICATION NUMBER: 60/088742
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DR FILING DATE: 1998-04-28
DR APPLICATION NUMBER: 60/084600
DR FILING DATE: 1998-05-07
DR APPLICATION NUMBER: 60/087106
DR FILING DATE: 1998-05-28
DR APPLICATION NUMBER: 60/087607
DR APPLICATION NUMBER: 60/087607
DR APPLICATION NUMBER: 60/087609
DR APPLICATION NUMBER: 60/087609
DR APPLICATION NUMBER: 60/087609
                                                                                                                                                                                                                                                     DR FILING DATE: 1998-06-04

R APPLICATION NUMBER: 60/088033

R FILING DATE: 1998-06-04

R FILING DATE: 1998-06-04

DR APPLICATION NUMBER: 60/088326

DR APPLICATION NUMBER: 60/088167

DR APPLICATION NUMBER: 60/088167

DR APPLICATION NUMBER: 60/088202

DR FILING DATE: 1998-06-05

DR FILING DATE: 1998-06-05
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NR APPLICATION NUMBER: 60/088028
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NR FILING DATE: 1998-06-04
NR APPLICATION NUMBER: 60/088030
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APPLICATION NUMBER: 60/087827
FILING DATE: 1998-06-03
APPLICATION NUMBER: 60/088021
FILING DATE: 1998-06-04
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FILING DATE: 1998-06-04
APPLICATION NUMBER: 60/088026
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APPLICATION NUMBER: 60/087759
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Roy, Margaret Ann
Stewart, Timothy
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PRIOR APPLICATION NUMBER: 60/088810
PRIOR PILLING DATE: 1998-06-10
PRIOR APPLICATION NUMBER: 60/088824
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PRIOR APPLICATION NUMBER: 60/088858
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PRIOR APPLICATION NUMBER: 60/089514
PRIOR PILLING DATE: 1998-06-17
PRIOR APPLICATION NUMBER: 60/08990
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PRIOR PILLING DATE: 1998-06-19
PRIOR APPLICATION NUMBER: 60/08990
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PRIOR PILLING DATE: 1998-06-24
PRIOR APPLICATION NUMBER: 60/09025
PRIOR PILLING DATE: 1998-06-24
PRIOR APPLICATION NUMBER: 60/09025
PRIOR PILLING DATE: 1998-06-24
PRIOR APPLICATION NUMBER: 60/09044
PRIOR PILLING DATE: 1998-06-24
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US-09-991-073-272

US-09-991-073-272

; Sequence 272, Application US/09991073
; Patent No. US20020127576A1
; GEMERAL INFORMATION;
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Best Local Sim
Matches 165;
APPLICANT: Ashkenazi, Avi J. APPLICANT: Baker, Kevin P. APPLICANT: Botstein, David
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DR APPLICATION NUMBER: 60/091978
DR FILING DATE: 1998-07-07
DR PILING DATE: 1998-07-07
DR FILING DATE: 1998-07-07
DR APPLICATION NUMBER: 60/092182
DR APPLICATION NUMBER: 60/092182
DR FILING DATE: 1998-07-09
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APPLICATION NUMBER: 60/090676
FILING DATE: 1998-06-25
APPLICATION NUMBER: 60/090678
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APPLICATION NUMBER: 60/091633
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FILING DATE: 1998-07-01
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FILING DATE: 1998-07-01
APPLICATION NUMBER: 60/091478
FILING DATE: 1998-07-02
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APPLICATION NUMBER: 60/090862
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FILING DATE: 1998-06-25
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APPLICATION NUMBER: 60/090863
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                                                                                                                                                                Q----YHNQPIHSVSEGV
                                                                                                                                                                                                                                                                       NPMVIPGNADHLHRTSIHQLPPÄTNRLATH-WEPCLW-
                                                                                                                                                                                                                                                                                                                                                             PAKREILWLSLGTQITYIGLQFISFLLLLTDLLLTGNPACGLKLSAFAAVSSVLSGLLG-
                                                                                                                                                                                                                                                                                                                                                                                                         MPVSLDGDTNTSTQEVVQYNWETGDDRFSFRSFRSGWMLSCEETVEEPGERCRSFIELTF
                                                                                                                                                   LIHGVGCHHLQHVHQDGAGV
                                                                                                                                                                                                                                                                                                 --MVA-----HMMYSQVFQ---ATVNLGPBDWRPHVWNYGWAFYMAWLSFTCCMASAVTT
                                                                                                                                                                                                                                                                                                                                  PAKRGEKGL------LEFATLQGPCHPTLRFG---
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                                                                                                                                                                                                                                       FNTYTRMVLBFKCKHSKSFKENPN----CLPHHHQCFPRRLSSAA-----PTVGPLTSYH
                                                                                                                                                                                                                                                                                                                                                                                                                                                      MAKMELSKAFSGQRTLLSAILSMLSLSFSTTSLLSNYWFVGTQKVPKPLCEKGLAAKCFD
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                                                                                                                                                   281
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TITLE OF INVENTION: Secreted and Transmembrae
TITLE OF INVENTION: Acids Encoding the Same
FILE REFERENCE: P2730PIC15
CURRENT APPLICATION NUMBER: US/09/91,073
CURRENT FILING DATE: 2001-11-14
PRIOR APPLICATION NUMBER: 60/062250
PRIOR FILING DATE: 1997-06-16
PRIOR APPLICATION NUMBER: 60/062250
PRIOR FILING DATE: 1997-11-12
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PRIOR FILING DATE: 1997-11-13
PRIOR APPLICATION NUMBER: 60/065311
PRIOR APPLICATION NUMBER: 60/075945
PRIOR APPLICATION NUMBER: 60/079910
PRIOR FILING DATE: 1997-11-24
PRIOR APPLICATION NUMBER: 60/078910
PRIOR PILING DATE: 1998-02-25
PRIOR APPLICATION NUMBER: 60/078910
PRIOR PILING DATE: 1998-03-20
PRIOR PILING DATE: 1998-03-20
PRIOR PILING DATE: 1998-03-20
PRIOR PILING DATE: 1998-05-28
PRIOR APPLICATION NUMBER: 60/087106
PRIOR PILING DATE: 1998-05-29
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PRIOR APPLICATION NUMBER: 60/08760
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PRIOR APPLICATION NUMBER: 60/08762
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OR APPLICATION NUMBER: 60/088030
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OR APPLICATION NUMBER: 60/088033
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OR APPLICATION NUMBER: 60/088326
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Williams, P. Mickey
Wood, William I.
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Roy, Margaret Ann
Stewart, Timothy A.
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Grimaldi, J. Christopher
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Gerritsen, Mary E
Goddard, Audrey
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OR APPLICATION NUMBER: 60/091544
OR FILING DATE: 1998-07-01
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OR FILING DATE: 1998-07-02
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OR FILING DATE: 1998-06-24
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OR FILING DATE: 1998-06-25
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FILING DATE: 1998-06-24
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APPLICATION NUMBER: 60/090445
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                                                                                                                 --MVA-----HMMYSQVPQ---ATVNLGPBDWRPHVWNYGWAFYMAWLSFTCCMASAVTT
                                                                                                                                                                                                                                             MPVSLDGDTNTSTQEVVQXNWETGDDRFSFRSFRSGMWLSCEETVEEPGERCRSFIELTP
                                                                                                                                                                                                                                                                     MPVSLDGDTNTSTQEVVQYNWETGDDRFSFRSFRSGMWLSCEETVEEFGERCRSFIELTF
                                                                                                                                                                                                                                                                                                                                                         MAKMELSKAFSGQRTLLSAILSMLSLSFSTTSLLSNYWFVGTQKVPKPLCEKGLAAKCFD
                                                                                                                                                                PAKRGEKGL-
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                                      FNTYTRMVLEPKCKHSKSPKENPN----CLPHHHQCFPRRLSSAA-----PTVGPLTSYH
                                                                               NPMVIPGNADHLHRTSIHQLPPATNRLATH-WEPCLW
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  FLCPVRSPGDGGPHDVFTSLPSDCQLGSRRLETTCLELWLGLLHGLALLH
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                                                                                                                                                                -----EFATLQGPCHPTLRFG---
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; Pred. No. 1.3e-60;
14; Mismatches 76;
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60/089538 60/089532 APPLICATION NUMBER: 60/089512 FILING DATE: 1998-06-16 APPLICATION NUMBER: 60/089514

FILING DATE: 1998-06-11 APPLICATION NUMBER: 60/088876 FILING DATE: 1998-06-11

APPLICATION NUMBER: 60/088861

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60/090252 60/090246 60/089952

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APPLICANT: Baker, Kevin P.
APPLICANT: Botstein, David
APPLICANT: Desnoyers, Luc
APPLICANT: Eaton, Dan L.
APPLICANT: Ferrara, Napoleon
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FILE REFERENCE: P2730PIC8
CURRENT APPLICATION NUMBER: US/09/990,442
CURRENT FILING DATE: 2001-11-14
PRIOR APPLICATION NUMBER: 60/049787
PRIOR PILING DATE: 1997-06-16
PRIOR APPLICATION NUMBER: 60/062250
PRIOR APPLICATION NUMBER: 60/062250
PRIOR FILING DATE: 1997-10-17
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APPLICANT: Zhang, Zemin

TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and

TITLE OF INVENTION: Acids Encoding the Same
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OR FILING DATE: 1998-06-02
OR APPLICATION NUMBER: 60/087609
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DR APPLICATION NUMBER: 60/078910

DR FILING DATE: 1998-03-20

DR APPLICATION NUMBER: 60/083322

DR FILING DATE: 1998-04-28

DR APPLICATION NUMBER: 60/084600

DR APPLICATION NUMBER: 60/087106

DR FILING DATE: 1998-05-28

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APPLICATION NUMBER: 60/065186
FILING DATE: 1997-11-12
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APPLICATION NUMBER: 60/075945
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APPLICATION NUMBER: 60/066770
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Kljavin, Ivar J
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Godowski, Paul
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Gerritsen, Mary E.
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DR FILING DATE: 1998-06-16
DR PILING DATE: 1998-06-16
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DR APPLICATION NUMBER: 60/089532
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DR APPLICATION NUMBER: 60/089539
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NR FILING DATE: 1998-06-10
NR PPLICATION NUMBER: 60/088826
NR FILING DATE: 1998-06-10
NR APPLICATION NUMBER: 60/088858
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NR APPLICATION NUMBER: 60/088861
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APPLICATION NUMBER: 60/089105
FILING DATE: 1998-06-12
APPLICATION NUMBER: 60/089440
FILING DATE: 1998-06-16
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FILING DATE: 1998-06-10
APPLICATION NUMBER: 60/088810
FILING DATE: 1998-06-10
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FILING DATE: 1998-06-05
APPLICATION NUMBER: 60/088655
FILING DATE: 1998-06-09
APPLICATION NUMBER: 60/088734
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FILING DATE: 1998-06-05
APPLICATION NUMBER: 60/088202
FILING DATE: 1998-06-05
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APPLICATION NUMBER: 60/088876
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APPLICATION NUMBER: 60/088326
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FILING DATE: 1998-06-04
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APPLICATION NUMBER: PILING DATE: 1998-0 FILING DATE: 1998-06-22 APPLICATION NUMBER: 60/ FILING DATE: 1998-06-22

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APPLICATION NUMBER: 60/091633
FILING DATE: 1998-07-02
APPLICATION NUMBER: 60/091978
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APPLICATION NUMBER: 60/090695
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APPLICATION NUMBER: 60/090696
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APPLICATION NUMBER: 60/091360
FILING DATE: 1998-07-01
APPLICATION NUMBER: 60/091478
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FILING DATE: 1998-06-24
APPLICATION NUMBER: 60/090445
FILING DATE: 1998-06-24
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FILING DATE: 1998-06-24
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FILING DATE: 1998-06-24
APPLICATION NUMBER: 60/090431
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APPLICATION NUMBER: 60/091626
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APPLICATION NUMBER: 60/091519
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APPLICATION NUMBER: 60/091544
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APPLICATION NUMBER: 60/090863
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APPLICATION NUMBER: 60/090542
FILING DATE: 1998-06-24
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FILING DATE: 1998-06-24
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FILING DATE: 1998-06-24
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FILING DATE: 1998-06-23
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MAKMELSKAFSGQRTLLSAILSMLSLSFSTTSLLSNYWFVGTQKVPKPLCEKGLAAKCFD
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                                                                                                                            Conservative
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Pred. No. 1.3
                                                                                                                            Mismatches
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ITILE OF INVENTION: Secreted and Transmembrane Pol
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FILE REPERENCE: P2730P1C17
CURRENT APPLICATION UNMBER: US/09/991,163
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PRIOR APPLICATION NUMBER: 60/062250
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PRIOR APPLICATION NUMBER: 60/065311
PRIOR FILING DATE: 1997-11-24
PRIOR APPLICATION NUMBER: 60/066770
PRIOR APPLICATION NUMBER: 60/075945
PRIOR FILING DATE: 1998-03-25
PRIOR APPLICATION NUMBER: 60/078910
PRIOR PILLING DATE: 1998-03-20
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R FILING DATE: 1998-03-20
R APPLICATION NUMBER: 60/083322
R FILING DATE: 1998-04-28
R APPLICATION NUMBER: 60/084600
R FILING DATE: 1998-05-07
R FILING DATE: 1998-05-28
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o. US20020132253A1
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Grimaldi, J. Christopher
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Goddard, Audrey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Williams, P. Mic. Wood, William I.
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Kljavin, Ivar J.
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art, Timothy A.
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DR FILING DATE: 1998-06-02

PR APPLICATION NUMBER: 60/087609

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PR PILING DATE: 1998-06-03

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PR APPLICATION NUMBER: 60/088021

DR PILING DATE: 1998-06-04

OR APPLICATION NUMBER: 60/088025

OR PILING DATE: 1998-06-04

OR APPLICATION NUMBER: 60/088025

OR APPLICATION NUMBER: 60/088026

OR APPLICATION NUMBER: 60/088026

FILING DATE: 1998-06-04
APPLICATION NUMBER: 60/088028
FILING DATE: 1998-06-04
APPLICATION NUMBER: 60/088029
APPLICATION 1998-06-04

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NUMBER: 60/091519 NUMBER: 60/091519 NUMBER: 60/091626 NUMBER: 60/091633 NUMBER: 60/091633 NUMBER: 60/091978 NUMBER: 60/091978 NUMBER: 60/091982 NUMBER: 60/091982 NUMBER: 60/091982	1998 - 0 NUMBER:	NUMBER: 6

PRIOR

DR APPLICATION NUMBER: 60/088876

R FILLING DATE: 1998-06-12

PREPLICATION NUMBER: 60/089105

R PILLING DATE: 1998-06-12

PREPLICATION NUMBER: 60/089440

R APPLICATION NUMBER: 60/089512

PREPLICATION NUMBER: 60/089512

PREPLICATION NUMBER: 60/089514

PREPLICATION NUMBER: 60/089514

PREPLICATION NUMBER: 60/089538

PREPLICATION NUMBER: 60/089598

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PREPLICATION NUMBER: 60/0895998

PREPLICATION NUMBER: 60/0895998

PREPLICATION NUMBER: 60/089600

PREPLICATION NUMBER: 60/089600

PREPLICATION NUMBER: 60/089653

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PREPLICATION NUMBER: 60/089600

PREPLICATION NUMBER: 60/089653

DR FILING DATE: 1998-06-04

OR APPLICATION NUMBER: 60/088030

OR PILING DATE: 1998-06-04

OR APPLICATION NUMBER: 60/088033

OR PILING DATE: 1998-06-04

OR APPLICATION NUMBER: 60/088033

OR PILING DATE: 1998-06-04

OR APPLICATION NUMBER: 60/088167

OR APPLICATION NUMBER: 60/088202

OR PILING DATE: 1998-06-05

OR FILING DATE: 1998-06-05

OR PILING DATE: 1998-06-05

OR APPLICATION NUMBER: 60/088217

OR APPLICATION NUMBER: 60/088734

OR APPLICATION NUMBER: 60/088734

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OR APPLICATION NUMBER: 60/088810

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OR APPLICATION NUMBER: 60/088824

OR APPLICATION NUMBER: 60/088824

OR APPLICATION NUMBER: 60/088824

OR APPLICATION NUMBER: 60/088828

OR PILING DATE: 1998-06-10

OR APPLICATION NUMBER: 60/088858

OR PILING DATE: 1998-06-11

OR APPLICATION NUMBER: 60/088858

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APPLICANT: Wood, William I.

APPLICANT: Zhang, Zemin

TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic

TITLE OF INVENTION: Acids Encoding the Same

PILE REFERENCE: P2730P1C25

CURRENT APPLICATION NUMBER: US/09/993,604

CURRENT FILING DATE: 2001-11-14

PRIOR APPLICATION NUMBER: 60/049787

PRIOR APPLICATION NUMBER: 60/06250

PRIOR PILING DATE: 1997-06-16

PRIOR APPLICATION NUMBER: 60/06250

PRIOR PILING DATE: 1997-10-17

PRIOR APPLICATION NUMBER: 60/065186

PRIOR APPLICATION NUMBER: 60/065311

PRIOR APPLICATION NUMBER: 60/065311
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US-09-993-604-272
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APPLICANT: Baker, Kevin P.
APPLICANT: Botstein, David
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Stewart, Timothy A.
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Grimaldi, J.Christopher
Gurney, Austin L.
Kljavin, Ivar J.
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Ferrara, Napoleone
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Pred. No. 1.3e-60;
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OR APPLICATION NUMBER: 60/087759
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OR APPLICATION NUMBER: 60/08022
OR PILING DATE: 1998-06-03
OR APPLICATION NUMBER: 60/088025
OR FILING DATE: 1998-06-04
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R APPLICATION NUMBER: 60/088655

DR FILING DATE: 1998-06-09

DR APPLICATION NUMBER: 60/088734

DR FILING DATE: 1998-06-10

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R APPLICATION NUMBER: 60/088738

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OR FILING DATE: 1998-04-28
OR APPLICATION NUMBER: 60/084600
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OR APPLICATION NUMBER: 60/087106
OR FILING DATE: 1998-05-28
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FILING DATE: 1998-06-10
APPLICATION NUMBER: 60/088826
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APPLICATION NUMBER: 60/088858
                                   FILING DATE: 1998-06-16
APPLICATION NUMBER: 60/089512
FILING DATE: 1998-06-16
APPLICATION NUMBER: 60/089514
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APPLICATION NUMBER: 60/089440
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FILING DATE: 1998-06-02
APPLICATION NUMBER: 60/087609
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APPLICATION NUMBER: 60/075945
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NUMBER: 60/089532
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NUMBER: 60/089599

1998-06-17 1998-06-3

APPLICATION NUMBER: 60/089653 FILING DATE: 1998-06-17 APPLICATION NUMBER: 60/089801

1998-06-18

APPLICATION NUMBER: 60/089600 FILING DATE: 1998-06-17

FILING DATE:
APPLICATION N
FILING DATE:
APPLICATION N

1998-06-17

60/089598 60/089538

1998-06-17

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RESULT 14
US-09-990-456-272
; Sequence 272, Application US/09990456
; Patent No. US20020137890A1
; GENERAL INFORMATION:
; APPLICANT: Ashkenazi, Avi J.
; APPLICANT: Baker, Kevin P.
; APPLICANT: Botstein, David
; APPLICANT: Desnoyers, Luc
; APPLICANT: Eaton, Dan L.
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OR FILING DATE: 1998-07-01
OR APPLICATION NUMBER: 60/091519
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OR APPLICATION NUMBER: 60/091626
OR FILING DATE: 1998-07-02
OR APPLICATION NUMBER: 60/091633
OR FILING DATE: 1998-07-02
OR APPLICATION NUMBER: 60/091978
OR FILING DATE: 1998-07-07
OR APPLICATION NUMBER: 60/091982
OR APPLICATION NUMBER: 60/091982
OR APPLICATION NUMBER: 60/092182
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Goddard, Audrey
Godowski, Paul J.
Grimaldi, J. Christopher
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Watanabe, Coli
Williams, P. M
Wood, William
                                             Stewart, Timo
Tumas, Daniel
                                                        Paoni, Nicholas F.
Roy, Margaret Ann
Stewart, Timothy A.
                                                                                                                                         Gurney, Austin I
Kljavin, Ivar J.
                                                                                                                                                                                                                                      Gerber, Hanspeter
                                                                                                                         Napier, Mary A.
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                                                                                                            Pan, James
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                Colin K.
P. Mickey
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Pred. No. 1.3e-60;
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Mismatches
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R APPLICATION NUMBER: (
R FILING DATE: 1998-06
R APPLICATION NUMBER: (
R FILING DATE: 1998-06

NUMBER: 60/090445

1998-06-24

60/090444

APPLICATION NUMBER: 60/090472

1998-06-24 1998-06-24 PILING DATE: 1998-0 APPLICATION NUMBER:

1998-06-24 1998-06-24

60/090435 60/090431

APPLICATION NUMBER:

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1998-06-24

R FILING DATE: 1998-06
R APPLICATION NUMBER:
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R FILING DATE: 1998-06

1998-06-25 1998-06-24 1998-06-24

60/090676

NUMBER: 60/090557

PILING DATE: 1998-06-24 APPLICATION NUMBER: 60/090542

FILING DATE: 1998-01 APPLICATION NUMBER: FILING DATE: 1998-00 APPLICATION NUMBER:

1998-06-24

60/090540 60/090535

APPLICATION NUMBER: 60/090678
FILING DATE: 1998-06-25
APPLICATION NUMBER: 60/090690
FILING DATE: 1998-06-25

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FILING DATE:

1998-07-01

60/091360

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NUMBER: 60/ : 1998-06-26 NUMBER:

60/090863

1998-06-26

60/090862

1998-06-25

APPLICATION NUMBER: 60/090695 FILING DATE: 1998-06-25 APPLICATION NUMBER: 60/090696

APPLICATION | FILING DATE:

NUMBER: 60/090694

1998-06-25

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FILING DATE: 1998-06-19
APPLICATION NUMBER: 60/090246
FILING DATE: 1998-06-22
APPLICATION NUMBER: 60/090252

APPLICATION NUMBER: 60/089952 FILING DATE: 1998-06-19 APPLICATION NUMBER: 60/089948

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NUMBER: 60/089908 NUMBER: 60/089907

1998-06-18

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NUMBER: 60/089947

APPLICATION NUMBER: 60/090254
FILING DATE: 1998-06-22
APPLICATION NUMBER: 60/090349

FILING DATE: 1998-06-22

FILING DATE: 1998-06-23 APPLICATION NUMBER: 60/090429

FILING DATE: 1998-0 APPLICATION NUMBER:

1998-06-23

60/090355

60/090349

PRIOR PELICATION NUMBER: 60/088738 PRIOR APPLICATION NUMBER: 60/088742 PRIOR APPLICATION NUMBER: 60/088742 PRIOR PILING DATE: 1998-06-10 PRIOR APPLICATION NUMBER: 60/088826 PRIOR APPLICATION NUMBER: 60/088858 PRIOR PILING DATE: 1998-06-10 PRIOR PILING DATE: 1998-06-10 PRIOR PILING DATE: 1998-06-11	PILING DATE APPLICATION PILING PILING PILING PILING PI	ZZR
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Best Local S
Matches 165
                                                                                                              Sequence 272, Application US/09989721
Patent No. US20020142961A1
GENERAL INFORMATION:
APPLICANT: Aphkenazi, Avi J.
APPLICANT: Baker, Kevin P.
APPLICANT: Botstein, David
                                       APPLICANT:
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OR APPLICATION NUMBER: 60/091626
OR FILING DATE: 1998-07-02
OR APPLICATION NUMBER: 60/091633
OR FILING DATE: 1998-07-02
OR PILING DATE: 1998-07-07
OR APPLICATION NUMBER: 60/091978
OR APPLICATION NUMBER: 60/091982
OR APPLICATION NUMBER: 60/092182
OR FILING DATE: 1998-07-07
OR APPLICATION NUMBER: 60/092182
OR FILING DATE: 1998-07-09
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FILING DATE: 1998-07-01
APPLICATION NUMBER: 60/091519
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APPLICATION NUMBER: 60/090862
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APPLICATION 1
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          Desnoyers, Luc
Eaton, Dan L.
Ferrara, Napoleone
Fong, Sherman
Gerber, Hanspeter
Gerritsen, Mary E.
Goddard, Audrey
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NUMBER: 60/091478
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Pred. No. 1.3e-60;
4; Mismatches 76;
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CURRENT APPLICATION NUMBER: US/09/989,721
CURRENT FILING DATE: 2001-11-19
PRIOR APPLICATION NUMBER: 60/049787
PRIOR TILING DATE: 1997-06-16
PRIOR FILING DATE: 1997-10-17
PRIOR PPLICATION NUMBER: 60/062250
PRIOR APPLICATION NUMBER: 60/065186
PRIOR APPLICATION NUMBER: 60/065311
PRIOR FILING DATE: 1997-11-12
PRIOR APPLICATION NUMBER: 60/06570
PRIOR PILING DATE: 1997-11-24
PRIOR PILING DATE: 1997-11-24
PRIOR APPLICATION NUMBER: 60/075945
PRIOR APPLICATION NUMBER: 60/075945
PRIOR APPLICATION NUMBER: 60/078910
PRIOR PILING DATE: 1998-02-25
PRIOR APPLICATION NUMBER: 60/078910
PRIOR APPLICATION NUMBER: 60/083322
PRIOR APPLICATION NUMBER: 60/083322
PRIOR APPLICATION NUMBER: 60/083322
PRIOR APPLICATION NUMBER: 60/083322
PRIOR APPLICATION NUMBER: 60/083960
PRIOR PILING DATE: 1998-04-28
PRIOR PILING DATE: 1998-05-07
PRIOR APPLICATION NUMBER: 60/087607
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                                                                                                                                                                                                                               DR FILING DATE: 1998-06-04

DR APPLICATION NUMBER: 60/088030

DR PILING DATE: 1998-06-04

DR APPLICATION NUMBER: 60/088033

DR FILING DATE: 1998-06-04

DR APPLICATION NUMBER: 60/088326

DR FILING DATE: 1998-06-04

DR PPLICATION NUMBER: 60/088167
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DR FILING DATE: 1998-05-28
DR APPLICATION NUMBER: 60/087607
DR FILING DATE: 1998-06-02
DR APPLICATION NUMBER: 60/087609
DR FILING DATE: 1998-06-02
DR APPLICATION NUMBER: 60/087759
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R APPLICATION NUMBER: 6
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FILING DATE: 1998-06-04
APPLICATION NUMBER: 60/088029
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APPLICATION NUMBER: 60/088026
FILING DATE: 1998-06-04
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APPLICATION NUMBER: 60/088021
FILING DATE: 1998-06-04
APPLICATION NUMBER: 60/088025
APPLICATION I
FILING DATE:
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Tumas, Daniel
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Kljavin, Ivar (
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NUMBER: 60/088655
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                                                                                                                                      LIHGVGCHHLQHVHQDGAGV
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                                                                                                                                                                                                                                                                                          FNTYTRMVLEFKCKHSKSFKENPN----CLPHHHQCFPRRLSSAA----PTVGPLTSYH
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ilarity 51.6%;
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Gaps

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FILING DATE: 1998-06-17 APPLICATION NUMBER: 60/

60/089600

FILING DATE: 1998-06-12
APPLICATION NUMBER: 60/089440
FILING DATE: 1998-06-16
APPLICATION NUMBER: 60/089512

APPLICATION NUMBER: 60/088876
FILING DATE: 1998-06-11
APPLICATION NUMBER: 60/089105

APPLICATION NUMBER: 60/088858 FILING DATE: 1998-06-11 APPLICATION NUMBER: 60/088861 FILING DATE: 1998-06-11

APPLICATION NUMBER: 60/088824 FILING DATE: 1998-06-10 APPLICATION NUMBER: 60/088826

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60/088810

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1: pir1:*
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Gapop 10.0 , Gapext 0.5
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1738
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   GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
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 208
340
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178 LGMVAHMMYSQVFQA ::: ::::: 390 VSLIVFMVNAEMLES 233 YTRMVLB : 445 YTFLFPEEVADSEYT 285 QFIHSVSEGVDFYSE 498 YIAGAISPRGDFXSQ	Query Match Best Local S Matches 50 Matches 273 128	etical protein CO1C10.1 - CB ies: Caenorhabditis elegans : 20-Sep-1999 #sequence_revi ssion: T15364 ey, A. ted to the EMBL Data Library ription: The sequence of C. rence number: Z18337 ssion: T15364 us: preliminary; translated cule type: DNA dues: 1-519 <pau> s-references: EMBL:U23526; N rimental source: strain Bris tics: : CESP:CO1C10.1 position: X ons: 30/3; 52/2; 86/1; 133/1 rfamily: Caenorhabditis eleg</pau>	0 85.5 4.9 640 1 HHK 1 85.5 4.9 640 1 2 21 2 84.5 4.9 192 1 22 3 84.5 4.9 469 2 745 3 84.5 4.9 375 2 535 5 84 4.8 375 2 JNO 7 83.5 4.8 4872 2 327 9 83 4.8 313 2 705 9 83 4.8 365 1 SAV 1 83 4.8 365 2 S27 1 83 4.8 365 2 S27 2 83 4.8 565 2 S27 3 82.5 4.7 360 2 T11 5 82 4.7 360 2 T11
LGMVAHMMYSQVPQATVNLGPEDWRPHVWNYGWAPYMAWLSFTCCMASAVTTPNT 232 : : : : : : : : : : :	19.4%; Score 100.5; DB 2; Length 519; imilarity 19.4%; Pred. No. 0.26; conservative 58; Mismatches 99; Indels 51; Gaps 10; wengddresersersgmwlsceetve	enorhabditis elegans sion 20-Sep-1999 #text_change 04-Mar-2000 ", March 1995 elegans cosmid CO1C10. from GB/EMBL/DDBJ from GB/EMBL/DDBJ floi N2; clone CO1C10 164/3; 212/3; 250/3; 274/3; 313/3; 385/1; 415/3; 480 ans hypothetical protein CO1C10.1	MYTA hypothetical prote 11poprotein B - Ha 478 heat-shock protein 685 686 687 188 dnaK-type molecula 1972 1972 1972 1973 1974 1075 1076 1077 1077 1077 1077 1077 1077 1077

RESULT 2
UC708B
JC708B
heat shock protein 70 - Stylophora pistillata
C;Species: Stylophora pistillata
C;Species: 03-Dec-1999 #sequence_revision 03-Dec-1999 #text_change 09-Jul-2004

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A;Cross-referent;G;Genetics:
A;Gene: hsp70
C;Superfamily:
C;Keywords: ATI
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C;Accession: JC7088
R;Tom, M.; Douek, J.; Yankelevich, I.; Bosch, T.C.G.; Rinkevich, B. Biochem. Biophys. Res. Commun. 262, 103-108, 1999
A;Title: Molecular characterization of the first heat shock protein A;Reference number: JC7088; MUID:99382249; PMID:10448076
A;Recession: JC7088
A;Accession: JC7088
A;Accession: JC7088
A;Roccule type: DNA
A;Residues: 1-650 CTOM>
A;Residues: 1-650 CTOM>
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A;Map position: 2
C;Superfamily: hexuronate
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A;Cross-references: UNIPROT:O82390; GB:AE002093; NID:g3582333; PIDN:AAC35230.1; GSPDB:GN
C;Genetics:
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A; Residues: 1-512 <STO>
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                                                                                                                                                                              140
                                                                                      183
                                                                                                                                133 TQITYIGLQF-ISFLLLLTDLLLTGN----PACGLKLSAFAAVSS-----VLSGL-LG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             186 YSQVFQATVN--LGPEDWRPHVWNYGWAFYMAWLSFTCCMASAVTTFNTYTRMVLEFKCK 243
                                         180 MVAHMMYSQVFQATVNLGPEDWRPHVWNYGW--AFY-----MAWLSFTCCMASAVTTFN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    304 KFE 306
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   219 FFQVLSTAGNTHLGGEDFDNRMVDY--
                                                                                                                                                                                                                      73
                                                                                                                                                                                                                                                                                                            26 LSFSTTSLLSNYWFVGTQKVPKP-----LCEKGLAAKCFD-----MPVSLDGDTNTS
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                                                                                   TILTPVAAKIGLPYLLVVRAFMGVGEGVAMPAMNNILSKWVPVQERSRSLALVYSGMYLG
                                                                                                                                                                          TVGLIQSSFFWG---YLLTQIAGGIW---ADTV--GGKRVLGF------GVIWWSIA 182
                                                                                                                                                                                                                      TOEVVOYNWETGDDRFSFRSFRSGMWLSCEETVEBPGERCRSFIELTPPAKREILWLSLG
                                                                                                                                                                                                                                                                  VSDSPSSIVLPWW----BEFFKRWVIVLLCFSAFLLCNMDRVNMSIAILPMSABYGWNPA 139
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ilarity 26.8%;
Conservative 1
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20.6%;
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                                                                                                                                                                                                                                                                                                                                                         41; Mismatches
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Pred. No. 0.34;
1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                              Score 95; D
Pred. No. 0.
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-IHQFGWPSVFYSFGSLGTVWLTL-
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dnaK-type molecular chaperone HSP70-Hom - human N;Alternate names: heat shock protein HSP70-Hom C;Species: Homo sapiens (man) C;Date: 03-Mar-1994 #sequence_revision 03-Mar-1994 C;Accession: B45871
                                                                                                                                                                                                                                                                                                                                                                                                                                        dnaK-type molecular chaperone Hsp70.3 - rat
N;Alternate names: heat shock protein 70
C;Species: Rattus norvegicus (Norway rat)
C;Date: 06-Jan-1995 #sequence_revision 06-Jan-1995
C;Accession: S41415; I68987
R;Lutz, W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Immunogenetics 32, 242-251, 1990
A;Title: Structure and expression of the three MHC-linked A;Reference number: A45871; MUID:91055806; PMID:1700760 A;Accession: B45871
A;Description: involved in protein C;Superfamily: heat shock protein 7 C;Keywords: ATP; molecular chaperon
                                                                                                                                                                                A;Cross-references: UNIPROT:P55063; EMBL:X77209; NID:g1814002; PIDN:CAA54424.1; R;Walter, L.; Rauh, F.; Gunther, E. Immunogenetics 40, 325-330, 1994
A;Title: Comparative analysis of the three major histocompatibility complex-link A;Reference number: I54542; MUID:95012453; PMID:7927536
A;Accession: I68987
A;Status: preliminary; translated from GB/EMBL/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Description: involved in protein folding C;Superfamily: heat shock protein 70 C;Keywords: ATP; molecular chaperone
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A;Molecule type: DNA
A;Residuss: 1-641 <MIL>
A;Cross-references: UNIPROT:P34931; GB:M59829; GB:M34268; NID:g188491;
                                                               A;Gene: Hsp70-3
C;Function:
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                                                                                                                                               A; Molecule type: DNA
A; Residues: 1-641 < RES >
                                                                                                                                                                                                                                                                                                                                      A; Molecule type: DNA
A; Residues: 1-641 < LUT>
                                                                                                                                                                                                                                                                                                                                                                               A; Reference number: A; Accession: S41415
                                                                                                                                                                                                                                                                                                                                                                                                   submitted to the EMBL Data Library,
A;Reference number: S41413
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                                                                                                      C; Genetics:
                                                                                                                              A; Cross-references:
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                                                                                                                           EMBL:X77209; NID:g1814002; PIDN:CAA54424.1;
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                                             of protein
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dnaK-type molecular chaperone Hsp70 [imported] - bloodfluke plan N,Alternate names: heat shock protein 70 C;Species: Biomphalaria glabrata (bloodfluke planorb) C;Date: 31-Jan-2000 #sequence_revision 31-Jan-2000 #text_change C;Accession: T45468 R;YOshino, T.P.; Wu, X.J.; Liu, H.D. submitted to the EMBL Data Library, November 1997 A;Description: Transfection and heat-inducible expression of a m.A.Reference number: Z22978 A;Accession: T45468 A;Accession: T45468 A;Status: preliminary; translated from GB/EMBL/DDBJ A;Molecule type: DNA
                                                                                                                                                                                                                                                                                                                                                                                  RESULT
T45468
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A;Variety: PCC 6803
C;Date: 25-Apr-1997 #sequence_revision 25-Apr-1997 #text_change 09-Jul-2004
C;Accession: $74477
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A;Residues: 1-585 <KAN>
A;Cross-references: UNIPROT:P72627; EMBL:D90899; GB:AB001339; NID:g1651650; PIDN:BAA1662
A;Note: the nucleotide sequence was submitted to the EMBL Data Library, June 1996
C;Superfamily: Synechocystis hypothetical protein slr1114
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Residues: 1-585 <KAN>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ---LLLTG----NPACGLKLSAFA-----AVSSVLSGLLGMVAHMMYSQVFQATVNLGP 198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EEPGERCRSFIELTPPAKREILW------LSLGTQITYIGLQFIS-----FLLLLTD 151
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ELSKAFSGQRT----LLSAILSMLSLSFSTTSLLSNYWFVGTQKVPKPLCEKG--LAAKC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FDMPVSLDGDTN--TSTQEV----VQYNWET-GDDRFSFRSFR-----SGMWLSCEETV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ELKSRFTATKVRWLLLVSVIFQGVMVFFRT-----GEIPVLYFLNPAGEQFSRYC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SHFVBEFKRKHKKDISQNKRAV-----RRLATACERAKRTLSSSTQANLBIDSLYEG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TRMVLEFKCKHSKSFKENPNCLPHHHQCFPRRLSSAAPTVGPLTSYHQYHNQPIHSVSEG 293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IDFYTSITRARFBELCADLFRGTLEPVEKSLRDA
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22.3%;
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26.6%;
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Pred. No. 1.9;
17; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 92; DB 2;
Pred. No. 1.9;
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hypothetical protein F10M10.30 - Arabidopsis thaliana (;Species: Arabidopsis thaliana (mouse-ear cress) C;Date: 23-Apr-1999 #sequence_revision 23-Apr-1999 #t C;Accession: T04772 C;Accession: T04772 R;Bevan, M; De Haan, M; Maarse, A.C.; Grivell, L.A. submitted to the Protein Sequence Database, February A;Reference number: Z15384
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Molecule type: DNA
A;Residues: 1-847 <BEV>
A;Residues: 1-847 <BEV>
A;Cross-references: UNIPROT:Q9SYZ1; EMBL:AL035521
A;Experimental source: cultivar Columbia; BAC clone F10M10
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T04772
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C;Superfamily: Arabidopsis thaliana hypothetical protein F10M10.30
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A; Introns: 91/1; 1
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A;Cross-references: UNIPROT:O44343; EMBL:AF025477; PIDN:AAB99911.1
A;Experimental source: strain PR albino
C;Genetics:
C;Genetics:
A;Gene: HSP70
C;Superfamily: heat shock protein 70
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Best Local
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                                                                    477
                                                                                                    174 LSGLLGMVAHMMYSQVFQATVNLGPEDWRPHVWNYG--WAFYMAWLSFTCCMASAVTTFN
                                                                                                                                         417
                                                                                                                                                                           145
                                                                                                                                                                                                              361 GSSTNETVQQATSTAERVRSFKTDQDPSLVELLFQYGRYLLISSSRPGTQVA--NLQ--A
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                               TY-----TRMVLEFKCKHSKSF-KENPNCLPHH 258
                                                                   NYGASGWVAHQVSDIWAKTSPDRGEAVWA--LWPMGGAWLCTHAWEHYTYTMDKEFLKKK 534
                                                                                                                                        FVVSLTPLLLLRYCSGAPHLNINLQMNYWHSLPGNIRECQEPLFDYMSALAINGRKTAQV
                                                                                                                                                                         FLLLLTDLLL----TGNPACGLKL-------SAPA-----AVSSV
                                                                                                                                                                                                                                                --SCEETVEE---PGERCRSFIELTPPAKREIL-----WLSL-----GTQITYIGLQFIS
                                                                                                                                                                                                                                                                                  ASSNFDGPFTMPVDSKIDPAKECVNRISSVQKYSYSDLYARHLGDYQKLFN--RVSLHLS
                                                                                                                                                                                                                                                                                                                   AAKCFDMPVSLDGDTN-----TSTQEVVQYNW-----ETGDDRFSFRSFRSGMWL-
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                                                                                                                                                                                                                                                                                                                                                      5.2%;
ilarity 24.1%;
Conservative 3
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Pred. No. 2.3;
15; Mismatches
                                                                                                                                                                                                                                                                                                                                                     Pred. No. 3.7;
3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                           Score 91; DB Pred. No. 3.7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A.C.; Grivell, L.A.; Hoheisel,
Database, Pebruary 1999
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Mayer

dnaK-type molecular chaperone Hsc70t - mouse N;Alternate names: heat shock protein 70 C;Species: Mus musculus (house mouse) C;Date: 02-Aug-1996 #sequence_revision 02-Aug-1996 C;Accession: I49761 C;Accession: I49761 Terminal Control of the control

C.M.; Teuscher,

C.; Campbell,

R.D.

#text_change 09-Jul-2004

RESULT 9

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C;Species: Cyanoph
C;Date: 13-Aug-199
C;Accession: T0762
R;Rensing, S.A.;
dnaK-type molecular chaperone 70IV - sea urchin (Paracentrotus lividus)
N;Alternate names: heat shock protein 70IV; hsp70IV protein
C;Species: Paracentrotus lividus (common urchin)
C;Date: 10-Jun-1993 #sequence_revision 10-Jun-1993 #text_change 09-Jul-2004
                                                                            RESULT
JC1391
                                                                                                                                                                                                                                                                                                                                                                                                                             C; Function:
A; Description: involved in protein folding C; Superfamily: heat shock protein 70 C; Keywords: ATP; molecular chaperone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Gene: hsp70
C;Function:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Molecule type: mRNA
A; Residues: 1-465 < REN>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eur. J. Phycol. 32, 279-285, 1997
A;Title: Molecular phylogeny of the
A;Reference number: Z16057
A;Accession: T07620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Description: involved in protein folding C;Superfamily: heat shock protein 70 C;Keywords: ATP; molecular chaperone
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A;Title: Coding sequences and levels of expression of Hsc70t are identical A;Reference number: I49761; MUID:94299288; PMID:8026864
A;Accession: I49761
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Molecule type: DNA
A; Residues: 1-641 < RES>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Status: preliminary; translated
                                                                                                                                              문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Status: translated from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           dnaK-type molecular chaperone hsp70 - Cyanophora pa
C;Species: Cyanophora paradoxa
C;Date: 13-Aug-1999 #sequence_revision 13-Aug-1999
                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local S
Matches 33
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Best Local S
Matches 25
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                                                                                                                                              132
                                                                                                                                                                                 308 GASQELKEAVRSS 320
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                                                                                                                                                                                                                                                                                                                        195 NLGPEDWRPHVWNYGWAFYMAWLSFTCCMASAVTTFNTYTRMVLEFKCKHSKSFKENPNC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      294 VDFYSELRNKGFQ-----RGASQELKEAVRSS 320
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                                                                                                                                              GCLEPVEKVLRDA 144
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iDfYTSITRARFEELCADLFRGTLEPVEKSLRDA 326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Obrdlik, P.; Rober-Kleber, N.; Mueller, N2, 279-285, 1997
                                                                                                                                                                                                                                                                                                                                                       Conservative
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24.8%;
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Pred. No. 2
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A; Molecule type: DNA
A; Residues: 1-70,'NG',73-109,'K',111-203,'R',205-261,'P',263,'ADGV',268-641
A; Cross-references: EMBL:X75357; NID:9407163; PIDN:CAA53140.1; PID:9407164
A; Experimental source: ischaemic rat heart
R; Lisoweka, K.; Widlak, W.; Krawczyk, Z.; Wolniczek, P.; Wisniewski, J.
Blochim. Biophys. Acta 1219, 64-72, 1994
A; Title: Cloning, nucleotide sequence and expression of rat heat inducible
A; Title: Cloning, sucleotide sequence and expression of rat heat inducible
A; Reference number: S47522; MUID:94368874; PMID:8086479
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R;Sconzo, G.; Scardina, G.; Ferraro, M.G.
Gene 121, 353-358, 1992
A;Title: Characterization of a new member of the sea urchin Paracentrotus lividus hsp70
A;Reference number: JC1391; MUID:93077053; PMID:1339375
A;Accession: JC1391
A;Molecule type: DNA
A;Residues: 1-639 <SCO>
A;Residues: 1-639 <SCO>
A;Cross-references: UNIFROT:Q06248; EMBL:X61379; NID:g312916; PIDN:CAA43653.1; PID:g3129
C;Genetics:
A;Genetics:
A;Gene
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A;Title: Isolation of a novel inducible rat heat-shock protein A;Reference number: S43388; MUID:94190258; PMID:8141767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     dnaK-type molecular chaperone HSP70 - rat
N;Alternate names: dnaK-type molecular chaperone HSP70Ib; heat shock protein
C;Species: Rattus norvegicus (Norway rat)
C;Date: 02-Aug-1996 #sequence revision 02-Aug-1996 #text change 09-Jul-2004
C;Accession: I54542; I68965, S43388; S47522; I56574; S35955; S38199; S41413;
A; Molecule type: DNA
A; Residues: 1-70,'NG', 73-407,'A',409-641 <LIS>
A; Residues: 1-70,'NG', 73-407,'A',409-641 <LIS>
A; Cross-references: EMBL: X74271; NID: 93413498; PIDN: CAA52328.1;
A; Note: the authors translated the codon CCG for residue 365 as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A;Status: preliminary; translated A;Molecule type: DNA A;Residues: 1-641 <WALL2>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Cross-references: UNIPROT:Q07439;
A;Experimental source: HSP70.1
A;Genetics: HSP1
A;Accession: I68986
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A; Accession: S47522
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A; Residues: 1-641 <WAL1>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Accession: S43388
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                                            PID:g396270
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S.M.

Sharp,

F.R.

Comp

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dnaK-type molecular chaperone hsp72-ps1 - C;Species: Rattus norvegicus (Norway rat) C;Date: 13-Jan-1995 #sequence_revision 13-C;Accession: 160329; 831716 C;Accession: 160329; 831716 R;Walter, L.; Heine, L.; Gunther, E. Immunogenetics 39, 351-354, 1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A, Molecule type: mRNA
A; Residues: 1-226, 'D', 228-641 <LON>
A; Cross-references: GB:L16764; NID:g294567;
C; Genetics: <HSP1>
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                                                                                                                                                                                                                                                                                                                                             A;Description: involved in protein folding C;Superfamily: heat shock protein 70 C;Keywords: ATP; molecular chaperone
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C; Function:
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C;Genetics:
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A;Title: CDWA cloning and expression of stress-inducible rat hsp70 in rA;Reference number: IS6574; MUID:94096443; PMID:8271311
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Pred. No. 4.5;
16; Mismatches
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Search completed: July 14,

2005,

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28.3832 secs

time

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A;Description: involved in protein folding C;Superfamily: heat shock protein 70 C;Keywords: ATP; molecular chaperone
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Nucleic Acids Res. 15, 5181-5197, 1987
A;Title: Structure and expression of a human gene coding A;Reference number: A27077; MUID:87259994; PMID:3037489
A;Accession: A27077
                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 15
A27077
dnaK-type molecular chaperone - human
N;Alternate names: heat shock cognate p
C;Species: Homo sapiens (man)
C;Date: 19-Nov.1988 #sequence_revision
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                                                                                                                                                                                                                                                                                                                          A;Residues:
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C;Function:
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A; Residues: 1-646 < RES>
A; Cross-references: EMBI
C; Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Title: Sequence, expression, and mapping of a rat Mhc class A;Reference number: I60329; MUID:94222444; PMID:7545923 A;Accession: I60329
A;Status: preliminary; translated from GB/EMBL/DDBJ
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Q9y698 Q9y777 Q9cy757 Q9jjv5 Q9jjv5 Q6e588 Q6e5p1 Q6n218 Q8r410 Q8r410 Q8vhw8 Q8vhw8 Q8vhw8 Q8d7u6

7 stylophora
7 stylophora
5 mus musculu
6 mus musculu
6 mus musculu
2 mattus norv
1 fugu rubrip
8 rhodopseudo
0 mus musculu
4 mus musculu
8 rattus norv

mus musculu brachydanio

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Post-processing:
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1738
1 MAKMELSKAPSGQR
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Copyright (c) 1993 - 2005
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Q8n4m3
Q8n1w2
Q8r1w2
Q6ay12
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Q8c2n5
Q9d9z3
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2 rattus norv
            rattus norv
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arabidopsis
fugu rubrip
rattus norv
mus musculu
xenopus lae
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2 kenopus lae
2 gallus gall
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3 rattus norv
mus musculu
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ID Q8NBR4;
AC Q8NBR4;
DT 01-OCT-2002 (
DE Hypothetical
OS Homo Bapiens
OC Bukaryota; Me
OC Mammalia; Eut
OX NCBI TAXID=96
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RP SEQUENCE FROM
RA ISOSAI T., Ot
RA Yamamoto J.,
RA Yamamoto J.,
RA Masuho Y., On
RA Masuho Y., On
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RA Hattori A., OC
RL Submitted (Masubi RAC)532
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01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
01-OCT-2002 (TrEMBLrel. 22, Last annotation update)
Hypothetical protein FLJ90841.
Homo sapiens (Human).
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Bukaryota; Metazoa; Chordata; Craniata; Hominidae; Homo.
NCBI TaxID-9606;
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EMBL, AKO75322; BAC11548.1; -.

SEQUENCE 326 AA; 36751 MW; 9A9682984F6B6D06 CRC64;
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                                                                                                                         KCKHSKSFKENPNCLPHHHQCFPRRLSSAAPTVGPLITSYHQYHNQPIHSVSEGVDFYSEL
                                                                                                                                                             VAHMMYSQVFQATVNLGPEDWRPHVWNYGWAFYMAWLSFTCCMASAVTTFNTYTRMVLEF
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Q9CY55
CCG3_MOUSE
QEE58
CCG2_MOUSE
Q71RJ2
Q6E5P1
Q6E5P1
Q6R218
Q8R410
CCG5_MOUSE
Q8R410
CCG5_RAT
CLDM_MOUSE
Q6FPF3
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XX Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
XX Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
XX Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
XX Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
XX Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
XX Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
XX Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
XX Altschenko L., Marusina K., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
XX Altschenko L., Wagner M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
XX Altschenko L., Ugdin T.B., Toshiyuki S., Carninci P., Prange C.,
XX Altschenko L., Wagner N.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
XX Stapleton M.J., Ugdin T.B., Toshiyuki S., Carninci P., Prange C.,
XX Altschenko L., M.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
XX Altschenko L., Morley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
XX Villalon D.K., Muzny D.M., Sodergren B.J., Lu X., Gibbs R.A.,
XX Yulking M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
XX Milting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
XX Milting M., Madan A., Young A.C., Shevchenko Y., Butterfield Y.S.,
XX Altschenko C., Grimwood J., Schmutz J., Myers R.M., Schein J.E.,
XX Altschenko L., Skalska U., Smailus D.E., Schnerch A., Schein J.E.,
XX Altschenko Y. Schein J. Schein J.E.,
XX Altschenko Y. Schein J. Schein J.E.,
XX Altschenk
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Strausberg R.;
Submitted (JUL-2002) to the EMBL/GenBank/DDBJ
EMBL; BC033854; AAH33854.1; -.
SEQUENCE 323 AA; 36376 MW; SFBE13C21BF6C08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa;
Mammalia; Eutheria;
NCBI_TaxID=9606;
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"Generation and initial analysis of more than 15,000
"Generation and initial analysis of more than 15,000
and mouse cDNA sequences.";
Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
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Homo sapiens (Human)
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GFORGASOELKEAVRSSVEEEOC
                                                             GFQRGASQELKEAVRSSVEBEQC
                                                                                                                                                                                                                    HSKSFKENPNCLPHHHQCFPRRLSSAAPTVGPLTSYHQYHNQPIHSVSBGVDFYSELRNK
                                                                                                                                                                                                                                                                                                                                                                                                                      MMYSQVFQATVNLGPEDWRPHVWNYGWAFYMAWLSFTCCMASAVTTFNTYTRMVLEFKCK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SLDGDTNTSTQEVVQYNWETGDDRFSFRSFRSGMWLSCEETVEEPGERCRSFIELTPPAK
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                                                                                                                                                                                   HSKSPKENPNCLPHHHQCPPRRLSSAAPTVGPLTSYHQYHNQPIHSVSEGVDFY
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Primates;
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99.7%;
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Q8R1W2;
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01-JUN-2002
01-OCT-2002
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01-OCT-2002
01-OCT-2002
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MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899; Strausberg R.L., Feingold B.A., Grouse L.H., Derge J.G., Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G. Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K. Hopkins R.F., Jordan H., Moore T., Max S.L., Mang J., Hsieh F., Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L., Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz
                                                                                                                                                                                                                                                                                                                      Gsg1 protein.
Name=Gsg1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Isogai T., Ota T., Nishikawa T., Hayashi K., Otsuki T., Sugiyama T., Suzuki Y., Nagai K., Sugano S., Ishii S., Kawai-Hio Y., Saito K., Yamamoto J., Wakamatsu A., Nakamura Y., Kojima S., Nagahari K., Masahor Y., Ono T., Okano K., Yoshikawa Y., Aotsuka S., Sasaki N., Hattori A., Okumura K., Iwayanagi T., Ninomiya K.; Submitted (MAR-2002) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-OCT-2002 (TrEMBLrel. 22, Cr
01-OCT-2002 (TrEMBLrel. 22, La
01-OCT-2002 (TrEMBLrel. 22, La
14)Pothetical protein FLJ90830.
Homo sapiens (Human)
                                                                                                                                                                                                                                                  Eukaryota; Metazoa;
Mammalia; Eutheria;
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Mammalia; Eutheria;
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Rodentia;
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Primates;
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31300 MW;
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21,
22,
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Pred. No. 8.3e
1; Mismatches
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                                                                                                                                                                                                                                                  Sciurognathi;
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                                                                                                                                                                                                                                                                          Craniata;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRT;
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thi; Muridae; Murinae; Mus
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Best Local Similarity
Matches 242; Conserv
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Q6AYL2;
25-OCT-2004 (TrEMBLrel. 2
25-OCT-2004 (TrEMBLrel. 2
25-OCT-2004 (TrEMBLrel. 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Submitted (FEB-2002) to the EMBL/GenBank/DDBJ da EMBL; BC023009; AAH23009.1; -. MGD; MGI:1194499; G8g1.
GO; GO:0016021; C:integral to membrane; TAS: SEQUENCE 365 AA; 40612 MW; 2DOAOAECOEA971PD
                                                                                                           Rattus norvegicus (Rat)
Eukaryota; Metazoa; Cho:
Mammalia; Butheria; Rod
NCBI TaxID=10116;
TISSUE-Testis;
PubMed=12477932; DOI=10.1073/pnas.242603899;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C., Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J., Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H., Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W., Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A., Villalon D.K., McKerman M., Madan A., Rodrigues S., Sanchez A., Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A., Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G., Blakesley R.W., Touchman J.W., Green B.D., Dickson M.C., Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S., Krzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E.,
                                                                                                                                                                                                     Hypothetical protein. Rattus norvegicus (Ra
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Jones S.J., Marra M.A.;
"Generation and initial analysis
and mouse CDNA sequences.";
                                                                SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MELSKAPSGQRTILISAILSMLSLSPSTTSLLSNYMPVGTQKVPKPLCEKGLAAKCPDMPV
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                                                                                                                                               Chordata;
Rodentia;
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Pred. No. 1.3e-103;
5; Mismatches 55;
                                                                                                                                             Craniata; Vertebrata; |
Sciurognathi; Muridae;
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                                                                                                                                               Rattus
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Best Local S
Matches 240
     Q8NBT1 PRELIMINARY; PRT; 343 AA.
Q8NBT1;
Q1-QT-2002 (TrEMBLrel. 22, Created)
Q1-QT-2002 (TrEMBLrel. 22, Last sequence update)
Q1-MAR-2003 (TrEMBLrel. 23, Last annotation update)
Hypothetical protein FLJ90807.
Hypothetical protein FLJ90807.
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Butheria; Primates; Catarrhini; Hominidae
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RA Strausberg R.L., Peingold E.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Altschul S.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Stapleton M.J., Uedin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA Raha S.S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalon D.K., Muzny D.M., Sodergren B.J., Lu X., Gibbs R.A.,
RA Villalon D.K., Muzny D.M., Sodergren B.J., Lu X., Gibbs R.A.,
RA Pahey J., Helton B., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA Pahey J., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Mhiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,
RA Kzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E.,
RA Jones S.J., Marra M.A..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Director MGC Project;
Submitted (AUG-2004) to the EMBL/GenBank/DDBJ
EMBL; BC079000; AAH79000.1; -.
Hypothetical protein.
SEQUENCE 366 AA; 40559 MW; 20807F1B9567C49
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              mouse cDNA sequences.";
c. Natl. Acad. Sci. U.S.A.
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SV-EEQC
                                                       SVEREQC
                                                                                                            RPHSWNYGWAFYTAWVSFTCCMVSAVTTENTYTRWVLEFKCRHGTSFNTNPSCRAQHHRC
                                                                                                                                                                                                                                                       RPHVWNYGWAFYMAWLSETCCWASAVITENTYTRHVLEFKCKHSKSFKENPNCLEHHHQC
                                                                                                                                                                                                                                                                                                                                         PISFLLLITDLLLTGNPACGLKLSAFAAVSSVLSGLLGMVAHMMYSQVFQATVNLGPEDW
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Pred. No. 1.8e-100;
2; Mismatches 60;
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Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.

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RESULT
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Best Local S
Matches 226
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Q9Z1H7;
Q9Z1H7;
01-MAY-1999
01-MAY-1999
01-OCT-2002
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EMBL; AK075288; BAC11524.1; -
  SEQUENCE FROM N.A.
STRAIN-black 6; TISSUE=Testis;
MEDLINE=98051916; PubMed=9337410;
Matsui M., Ichihara H., Kobayashi
                                                                                                                                                                                                                                                                                                                                                     Mus musculus (Mouse)
Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                             SEQUENCE PROM N.A.
STRAIN=black 6; TISUE=Testis;
MEDLINE=95046372; FNDMed=7957958;
Tanaka H., Yoshimura Y., Nishina Y
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                                                                                                                                                                                                                                                                                                                                                                                                                           Name=Gsg1;
                                                                                                                    in testicular germ cells.";
FEBS Lett. 355:4-10(1994).
                                                                                                                                                                                          Tanaka H., Yo
Nishimune Y.;
                                                                                                                                                                                                                                                                                                                               NCBI_TaxID=10090;
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Pred. No. 4e-8
13; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Last sequence update)
Last annotation update)
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  s;
                                                                                                                                                                                                           DOI=10.1016/0014-5793(94)01155-9;
Y., Nozaki M., Nojima H.,
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    Tanaka
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Taketo M.M., Seldin M.F.;
"Mapping of six germ-cell-specific ge
Mamm. Genome 8:873-874(1997).

EMBL; D87325; BAA370877.1; -.

R MGD; MGI:1194499; Gsgl.
R GO; GG:01016021; C:integral to membra
GO; GG:016021; C:integral to membra
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01-JUN-2001
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01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
01-JUN-2001 (TrEMBLrel. 17, Last annotation update)
01-JUN-2001 (TrEMBLrel. 17, Last annotation update)
Mus musculus adult male testis cDNA, RIKEN full-length enr
library, clone:1700025C22 product:germ cell-specific gene
                            SEQUENCE FROM N.A.
STRAIN=C57BL/6J; TISSU
The FANTOM Consortium,
the RIKEN Genome Explo
                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
STRAIN=C57BL/6J; TISSUE=Testis;
MEDLINE=21085660; PubMed=11217851;
RIKEN FANTOM Consortium;
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STRAIN=CS7BL/60; TISSUE=Testis;
MEDLINE=99279253; PubMed=10349636;
Carminci P., Hayashizaki Y.;
"High-efficiency full-length cDNA of the control of the 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mus musculus (Mouse)
Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NCBI_TaxID=10090;
                                                                                                                                                                                      Nature 409:685-690(2001).
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Exploration Research Group mouse transcriptome based o
                                                                                               TISSUE-Testis;
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Rodentia;
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Sciurognathi; Muridae;
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8B19EF61CAAB5016
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No. 3.3
                                                                                                                                                                                                                                                                                  DOI=10.1038/35055500;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DOI=10.1016/S0076-6879(99)03004-9;
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A Arakawa T., Bono H., Carninci P., Fukuda S., Fukunishi Y., Furuno M.,
A Hanagaki T., Bono H., Carninci P., Fukuda S., Fukunishi Y., Furuno M.,
A Hanagaki T., Bono H., Carninci P., Fukuda S., Fukunishi Y., Furuno M.,
A Imotani K., Ishii Y., Itoh M., Izawa M., Kasukawa T., Kato H.,
A Kawai J., Kojima Y., Konno H., Kouda M., Koya S., Kurihara C.,
A Kawai J., Kojima Y., Konno H., Kouda M., Koya S., Kurihara C.,
A Matsuyama T., Miyazaki A., Nishi K., Nomura K., Numazaki R., Ohno M.,
A Matsuyama T., Owa C., Saito H., Sakai C., Sakai K.,
A Matsuyama T., Owa C., Saito H., Sakai C., Sakai K.,
A Sano H., Sasaki D., Shibata K., Shibata Y., Shinagawa A., Shiraki T.,
A Sogabe Y., Suzuki H., Tagami M., Tagawa A., Takahashi F., Tanaka T.,
A Sogabe Y., Suzuki H., Tagami M., Tagawa A., Yoshida K., Yoshino M.,
A Muramatsu M., Hayashizaki Y.,
B Muramatsu M., Hayashizaki Y.,
B Submitted (JUL-2000) to the EMBL/GenBank/DDBJ databases.
EMBL, AKO06326; BAB24527.1; -.
Q8C2N5;
Q8C2N5;
01-MAR-2003
01-MAR-2003
01-JUN-2003
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STRAIN=C57BL/6J; TISSUE=Testis;

MEDLINE=20499374, PubMed=11042159, DOI=10.1101/gr.145100;

Carninci P., Shibata Y., Hayatsu N., Sugahara Y., Shibata K., It

Konno H., Okazaki Y., Muramatsu M., Hayashizaki Y.;

"Normalization and subtraction of cap-trapper-selected cDNAs to

prepare full-length cDNA libraries for rapid discovery of new ge

Genome Res. 10:1617-1630(2000).
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GO; GO:0016021; C:integral to
SEQUENCE 217 AA; 24215 MW;
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C STRAIN-NOD; TISSUB-Thymus;

RA Adachi J., Alzawa K., Akimura T., Arakawa T., Bono H., Carninci P.,

RA Pukuda S., Furuno M., Hanagaki T., Hara A., Hashizume W.,

RA Hayashida K., Hayatsu N., Hiramoto K., Hiraoka T., Hirozane T.,

RA Hori F., Imotani K., Ishii Y., Itoh M., Kagawa I., Kasukawa T.,

RA Katoh H., Kawai J., Kojima Y., Kondo S., Konno H., Kouda M., Koya S.,

RA Kutihara C., Matsuyama T., Miyazaki A., Murata M., Nakamura M.,

RA Nishi K., Nomura K., Numazaki R., Ohno M., Ohsato N., Okazaki Y.,

RA Saito R., Saitoh H., Sakai C., Sakai K., Sakazume N., Sano H.,

RA Sasaki D., Shibata K., Shinagawa A., Shiraki T., Sogabe Y., Tagami M.

RA Tagawa A., Takahashi F., Takaku-Akahira S., Takeda Y., Tanaka T.,

RA Tomaru A., Toya T., Yasunishi A., Muramatsu M., Hayashizaki Y.;

RA Tomaru A., Toya T., Yasunishi A., Muramatsu M., Hayashizaki Y.;

RA Tomaru A., Toya T., Yasunishi A., Muramatsu M., Hayashizaki Y.;

RA Tomaru A., Toya T., Yasunishi A., Muramatsu M., Hayashizaki Y.;

RA Tomaru A., Toya T., Yasunishi A., Muramatsu M., Hayashizaki Y.;

RA Tomaru A., Toya T., Yasunishi A., Muramatsu M., Hayashizaki Y.;

RA Tomaru A., Toya T., Yasunishi A., Muramatsu M., Hayashizaki Y.;

RA Tomaru A., Toya T., Yasunishi A., Muramatsu M., Hayashizaki Y.;

RA GO, GO:0016021, C:integral to membrane; TAS.

DR GO; GO:0016021, C:integral to membrane; TAS.

DR GO; GO:0016021, C:integral to membrane; TAS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRAIN=NOD; TISSUB=Thymus;

MEDLINB=20530913; PubMed=11076861; DOI=10.1101/gr.152600;

MEDLINB=20530913; PubMed=11076861; DOI=10.1101/gr.152600;

Shibata K., Itch M., Aizawa K., Nagaoka S., Sasaki N., Carninci P.,

Konno H., Akiyama J., Nishi K., Kitsunai T., Tashiro H., Itch M.,

Yamamoto R., Matsumoto H., Sakaguchi S., Ikegami T., Kashiwagi K.,

Yanamoto R., Matsumoto H., Sakaguchi S., Ikegami T., Kashiwagi K.,

Pujiwake S., Inoue K., Togawa Y., Izawa M., Ohara E., Watshiki M.,

Yoneda Y., Ishikawa T., Ozawa K., Tanaka T., Matsuura S., Kawai J.,

Yokazaki Y., Muramatsu M., Inoue Y., Kira A., Hayashizaki Y.;

"RIKEN integrated sequence analysis (RISA) system-384-format

sequencing pipeline with 384 multicapillary sequencer.";

Genome Res. 10:1757-1771(2000).
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SEQUENCE FROM N.A.
STRAIN-NOD; TISSUE=Thymus;
MEDLINE=21085660; PubMed=11217851; DOI=10.1038/35055500;
MEDLINE=21085660; PubMed=11217851; DOI=10.1038/35055500;
MIXEN FANTOM Consortium;
AIXEN FANTOM Consortium;
Threat annotation of a full-length mouse cDNA colle
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length enriched library, clone:E430010D20 product:germ cell-----/
gene 1, full insert sequence.
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MEDLINE=20499374; PubMed=11042159; DOI=10.1101/gr.145100;
Carninci P., Shibata Y., Hayatsu N., Sugahara Y., Shibata
Konno H., Okazaki Y., Muramatsu M., Hayashizaki Y.;
"Normalization and subtraction of cap-trapper-selected cDN
prepare full-length cDNA libraries for rapid discovery of
Genome Res. 10:1617-1630(2000).
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The FANTOM Consortium,
the RIKEN Genome Exploration Research
"Analysis of the mouse transcriptome b
60,770 full-length cDNAs.";
Nature 420:563-573(2002).
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STRAIN=NOD; TISSUB=Thymus;
STRAIN=NOD; TISSUB=Thymus;
MEDLINE=99279253; PubMed=10349636;
Carninci P., Hayashizaki Y.;
Carninci P., Hayashizaki Y.;
"High-efficiency full-length cDNA ("High-efficiency full-len
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Mammalia; Eutheria;
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RA Ota T., Suzuki Y., Nishikawa T., Otsuki T., Sugiyama T., Irie R.,
RA Wakamatsu A., Hayashi K., Sato H., Nagai K., Kimura K., Makita H.S.,
RA Sekine M., Obayashi M., Nishi T., Shibahara T., Tanaka T., Ishi S.,
RA Yamamoto J., Saito K., Kawai Y., Isono Y., Nakamura Y., Nagahari K.,
RA Yamamoto J., Saito K., Kawai Y., Isono Y., Nakamura Y., Nagahari K.,
RA Sudo H., Hosoiri T., Kaku Y., Kodaira H., Kondo H., Sugawara M.,
RA Sudo H., Hosoiri T., Kaku Y., Kodaira H., Kondo H., Sugawara M.,
RA Takahashi M., Kanda K., Yokoi T., Furuya T., Kikkawa B., Omura Y.,
RA Abe K., Kamihara K., Katsuta N., Sato K., Tanikawa M., Yamazaki M.,
RA Ninomiya K., Ishibashi T., Yamashita H., Murakawa K., Fujimori K.,
RA Tanai H., Kimata M., Watanabe M., Hiraoka S., Chiba Y., Ishida S.,
RA Ono Y., Takiguchi S., Watanabe S., Yosaida M., Hotuta T., Kusano J.,
RA Kanehori K., Yuuki H., Oshima A., Sasaki N., Aotsuka S.,
RA Musashino K., Yuuki H., Oshima A., Sasaki N., Aotsuka S.,
RA Yoshikawa Y., Matsunawa H., Ichihara T., Shiohata N., Sano S.,
RA Yoshikawa S., Senoh A., Mizoguchi H., Goto Y., Shimizu F., Wakebe H.,
RA Hishigaki H., Watanabe K., Kumagai A., Itakura S., Fukuzumi Y.,
RA Yamazaki M., Watanabe K., Kumagai A., Itakura S., Fukuzumi Y.,
RA Yamazaki M., Watanabe T., Sujiyama A., Takemoto M., Kawakami B.,
RA Yamazaki M., Watanabe T., Sujiyama A., Takemoto M., Kawakami B.,
RA Yamazaki M., Watanabe T., Nobutawa A., Takuni A., Fujiwara T.,
RA Kawabata A., Hikiji T., Kobatake N., Inagaki H., Ikema Y., Okamoto S.,
RA Kawabata A., Hikiji T., Kobatake N., Inagaki H., Ikema Y., Okamoto S.,
RA Musumura K., Nagase T., Nomura N., Kikuchi H., Kamashi Y., Nakagawa K.,
RA Nigabat T., Nakamima Y., Satoh T., Shirai Y., Takahashi Y., Nakagawa K.,
RA Nigase T., Nomura Y., Ohara O., Isogai T., Sugano S.,
RA Nigase T., Nakamara Y., Ohara O., Isogai T., Sugano S.,
RA Nigase T., Nakamara Y., Ohara O., Isogai T., Sugano S.,
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                             MEDLINE=22887296; PubMed=12975309; Clark H.F., Gurney A.L., Abaya E., Chen J., Chow B., Chui C., Crowley
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Mammalia; Eutheria;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PPAKRBILWLSLGTQITYIGLQFISFLLLLTDLLLTGNPACGLKLSAFAAVSSVLSGLLG
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Primates;
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Pred. No. 3.2e-62
6; Mismatches 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
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                          DOI=10.1101/gr.1293003;
Baker K., Baldwin D., Brush
C., Currell B., Deuel B., Do
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Dowd P.,
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RASSULT 11

Q9BUYA

ID Q9BUYA

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DT 01-JU

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GR Germ

GN Name-
OS HOMO

OC EUKRAZ

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Q9BUY4;
01-JUN-2001 (TrEMBLrel. 1
01-JUN-2001 (TrEMBLrel. 1
01-DEC-2001 (TrEMBLrel. 1
Germ cell associated 1.
Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
Stapleton M., Soares M.B., Bonaldo M.F., Casvant T.L., Scheetz T.E.,
Brownstein M.J., Ugdin T.B., Toshiyuki S., Carninci P., Prange C.,
Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
Villalon D.K., Muzny D.M., Sodergren B.J., Lu X., Gibbs R.A.,
Villalon D.K., Muzny D.M., Sodergren B.J., Lu X., Gibbs R.A.,
Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eaton D., Foster J., Grimaldi C., Gu Q., Hass P.E., Heldens S., Huang A., Kim H.S., Klimowski L., Jin Y., Johnson S., Lee J., Lewis L., Liao D., Mark M., Robbie E., Sanchez C., Schoenfeld J., Seshagiri S., Simmons L., Singh J., Smith V., Stinson J., Vagts A Vandlen R., Watanabe C., Wieand D., Woods K., Xie M.H., Yansura D Vandlen R., Yuan J., Zhang M., Zhang Z., Goddard A., Wood W.I.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens (Human)
Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          bioinformatics assessment.",
Genome Res. 13:2265-2270 (2003).
EMBL; AKO27894; BAB55437-1; --
EMBL; AX358513; AAQ88877.1; --
                                                                                                                                                                                                                                                                                                                                                           TISSUE=Eye;
MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Name=GSG1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "The secreted protein discovery initiative (SPDI), a large-scale effort to identify novel human secreted and transmembrane protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Godowski P.;
                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NCBI_TaxID=9606;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Chordata;
Primates;
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51.6%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Last sequence update)
Last annotation updat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 657.5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    639013F67BC7F765
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Best Local S
Matches 162
 Query Match
Best Local Similarity 47.
                                                                                                                                                                                                                                                                                                   Q96LP9 PRELIMINARY; PRT; 326 AA.
Q96LP9;
Q1-DEC-2001 (TrEMBLrel. 19, Created)
Q1-DEC-2001 (TrEMBLrel. 19, Last sequence update)
Q1-OCT-2002 (TrEMBLrel. 22, Last annotation update)
Hypothetical protein FLJ25316.
Homo sapiens (Human).
Charders Craniata: Vertebrata;
                                                                              SEQUENCE FROM N.A.

TISSUB-TestLB;

TISSUB-TestLB;

Ishibashi T., Kanehori K., Yosida M., Watanabe S., Ishida S., Ono Y.,

Ishibashi T., Kanehori K., Takiguchi S., Kusano J.,

Hotuta T., Hiraoka S., Murakawa K., Takiguchi S., Kusano J.,

Watanabe M., Fujimori K., Tanai H., Ishida M., Yamashita H., Chiba Y.,

Suzuki Y., Hata H., Nakegawa K., Mizuno S., Morinaga M., Kawamura M.,

Sugiyama T., Irie R., Otsuki T., Sato H., Nishikawa T., Sugiyama A.,

Kawakami B., Nagai K., Isogai T., Sugano S.,

Submitted (CCT-2001) to the EMBL/GenBank/DDBJ databases.

EMBL, AK058045; BAB71638.1, -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G., Blakesley R.W., Touchman J.W., Green B.D., Dickson M.C., Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Krzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J. Jones S.J., Marra M.A., "Generation and initial analysis of more than 15,000 full-length and mouse cDNA sequences.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Submitted (JAN-2001) to the EMBL/GenBank/DDBJ databases. EMBL; BC001796; AAH01796.1; -. SEQUENCE 282 AA; 31102 MW; F0F7D123255A2935 CRC64;
                                                                  EMBL; AK058045; BAB71638.1; SEQUENCE 326 AA; 36004 M
                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Strausberg R.;
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Primates;
               35.8%;
                                                                  36004 MW;
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51.1%;
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Score 623; DB 2; Length 326; Pred. No. 2e-47; S; Mismatches 76; Indels
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Pred. No. 2.5
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                                                                 AE22B4CA249971CD
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88;
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RESULT 13
QGUXU
QGUXU
AC QGUXU
AC QGUXU
DT 05-JU
DT 05-JU
DT 05-JU
DT NTSR5
GN ORTNA
OS HOMO
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OC Mamma
OX NCBI_
RN [1]
RP SEQUE
RX HEDLI
RA Chen
RA Chen
RA Chen
RA Chen
RA Lewik
RA Chen
RA Godov
RA Haarg
RA Yi S.
RA Godov
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Best Local Sin
Matches 111;
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Q6UXU4;
05-JUL-2004
05-JUL-2004
05-JUL-2004
                                                                                                                                                                                                                                                                                                                                                                       Clark H.F., Gurney A.L., Abaya E., Baker K., Baldwin D., Brush J. Chen J., Chow B., Chui C., Crowley C., Currell B., Deuel B., Dowd Baton D., Foster J., Grimaldi C., Gu Q., Hass P.E., Heldens S., Huang A., Kim H.S., Klimowski L., Jin Y., Johnson S., Lee J., Lewis L., Liao D., Mark M., Robbie B., Sanchez C., Schoenfeld J., Seshagiri S., Simmons L., Singh J., Smith V., Stinson J., Vag's A Vandlen R., Watanabe C., Wieand D., Woods K., Xie M.H., Yansura D Yi S., Yu G., Yuan J., Zhang M., Zhang Z., Goddard A., Wood W.I., Godowski P.,
                                                                                                                                                                                                                                                                                       effort to identify novel human secreted bioinformatics assessment.", Genome Res. 13:2265-2270(2003).
EMBL; AY358206; AAQ88573.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
MEDILINE=22887296; PubMed=12975309; DOI=10.1101/gr.1293003;
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Mammalia; Eutheria;
                                                                                                                                                                                                                                                                        SEQUENCE
                                                                                                                                                                                                                                                                                                                                          "The secreted protein discovery initiative (SPDI), a large-scale effort to identify novel human secreted and transmembrane protei
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORFNames=UNQ5831;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=9606;
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                                ELTPPAKREILWLSLGTQITYIGLQFISFLLLLTDLLLTGNPACGLKLSAFAAVSSVLSG 176
DLAPASEK-
                                                                   AAPAAAAAATASGNGPPGGALYSWETGDDRFLFRNFHTGIWYSCEEELSGLGEKCRSFI
                                                                                 QEVVQ------| YNWETGDDRFSPRSFRSGMWLSCEETVEEPGERCRSFI
                                                                                                                                 RALLAVALNILLALLFATTAFITTHWCQGTQRVPKPGCGQGGRANC---PNSGANATANGT
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                                                                                                                                                                                                                                                                        280 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Chordata;
Primates;
                                                                                                                                                                                                                                                                        31250 MW;
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27,
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                                                                                                                                                                                                   Score 531; DB 2;
Pred. No. 3.1e-39;
7; Mismatches 56
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                                                                                                                                                                                                                                   Length
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                                                                                                                                       Q8TB81;
Q8TB81;
01-JUN-2002
01-JUN-2002
01-CCT-2002
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Q7Z6F8;
01-OCT-2003
TISSUE-Brain;
MEDLINE-22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler
                                                                                    Bukaryota; Metazoa;
Mammalia; Butheria;
                                                                                                                    Hypothetical protein MGC18079.
Name=MGC18079;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.

Li H., Li S., Zhou G., Shen C., Li M., Xiao W., Lin L., Yang Submitted (MAY-2003) to the EMBL/GenBank/DDBJ databases.

EMBL; AY302134; AAP57626.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens (Human).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
NCBI TaxID=9606;
                                                     SEQUENCE FROM N.A.
                                                                         NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE
                                                                                                          Homo sapiens (Human)
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                                                                                                                                                                                                                                                                                                                                                                                                           83;
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                                                                                                                                                                                                                                                                                                                                    ---EQC 326
                                                                                                                                                                                                                                                                               QIEAQR-GRATCPRSHSWMEKRDGSE-EDFHLDCRHERYPARHQPHMADSWPRSSAQEAP 181
                                                                                                                                                                                                                                                                                                    SSAAPTVGPLTSYHQYHNQPIHSVSEGVDFYSELRNKGFQRGASQELKEA-VRSSVEE--
                                                                                                                                                                                                                                                                                                                      SPCLAWGSFTCCWAASVTTLNSYTKTVIEFRHKRKVFEQGYREEFTFIDFEAIKYFRERW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HHQCFPRRLSSAAP 271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LLGMVAHMMYTQVFQVTVSLGPEDWRPHSWDYGWSFCLAWGSFTCCMAASVTTLNSYTKT 193
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                                                                                                                                                                                                                                        BLNRQC 187
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                                                                                                                                                                                                                                                                                                                                                                                                                                                      194 AA;
                                                                                                                                       (TrEMBLrel. 21, Created)
(TrEMBLrel. 21, Last sequence update)
(TrEMBLrel. 22, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                   PRELIMINARY;
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                                                                                    Chordata;
Primates;
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44.6%; Pred. No. 1.3e-24;
ative 30; Mismatches 61
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Last annotation update)
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                                                                                    Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
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            Schuler G.D.,
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Matches 72
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A Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Heish F.,
A Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
A Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Frange C.,
A Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Frange C.,
A Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Frange C.,
A Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Frange C.,
A Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
A Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
A Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
A Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
A Richards S., Worley K.C., Hale S., Garcia A.M., Sodrigues S., Sanchez A.,
A Richards S., Mozney D.M., Sodergren B.J., Lu X., Gibbs R.A.,
A Pahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
A Whiting M., Madan A., Young A.C., Shevohenko Y., Bouffard G.G.,
A Mitting M., Madan A., Young A.C., Shevohenko Y., Bouffard G.G.,
A Mitting A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,
A Krzywinski M.I., Skalaka U., Smailus D.E., Schnerch A., Schein J.E.,
A Krzywinski M.I., Skalaka U., Smailus D.E., Schnerch A., Schein J.E.,
                                                                                                                                                                                                                                                                                                                                                                                                                Strausberg R.; Submitted (OCT-2001) to the EMBL/GenBank/DDBJ databases EMBL; BC016460; AAH16460.1; -.
                                                                                                                                                                                                                                                                                                                                                                           Hypothetical protein.
SEQUENCE 176 AA; 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Jones S.J., Marra M.A.;
"Generation and initial analysis of more than 15,000 full-length human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903 (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        mouse cDNA sequences."
124
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                                                                                          64
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                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                  AFYMAMLSFTCCMASAVTTPNTYTRMVLEFKCKH---SKSFKENPNCL-----
                                                                                                                                                                                    SFCLAWGSFTCCMAASVTTLNSYTKTVIEFRHKRKVFEQGYREEPTFIDPEAIKYFRERM
  EKRDGSBEDFHLDCRHERYPARHQPHMADSWPRSSAQEAP
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                                                                                                                                                                                                                                                                                                       21.0%;
                                                                                                                                                                                                                                                                                                                                                                              20586 MW;
                                           -----PHHHQCFPRRLSSAAP 271
                                                                                                                                                                                                                                                                                   21;
                                                                                                                                                                                                                                                                                                       Score 365.5; DB 2;
Pred. No. 1.3e-24;
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  163
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Search completed: July 14, 2005, 20:32:20 Job time: 109.168 secs